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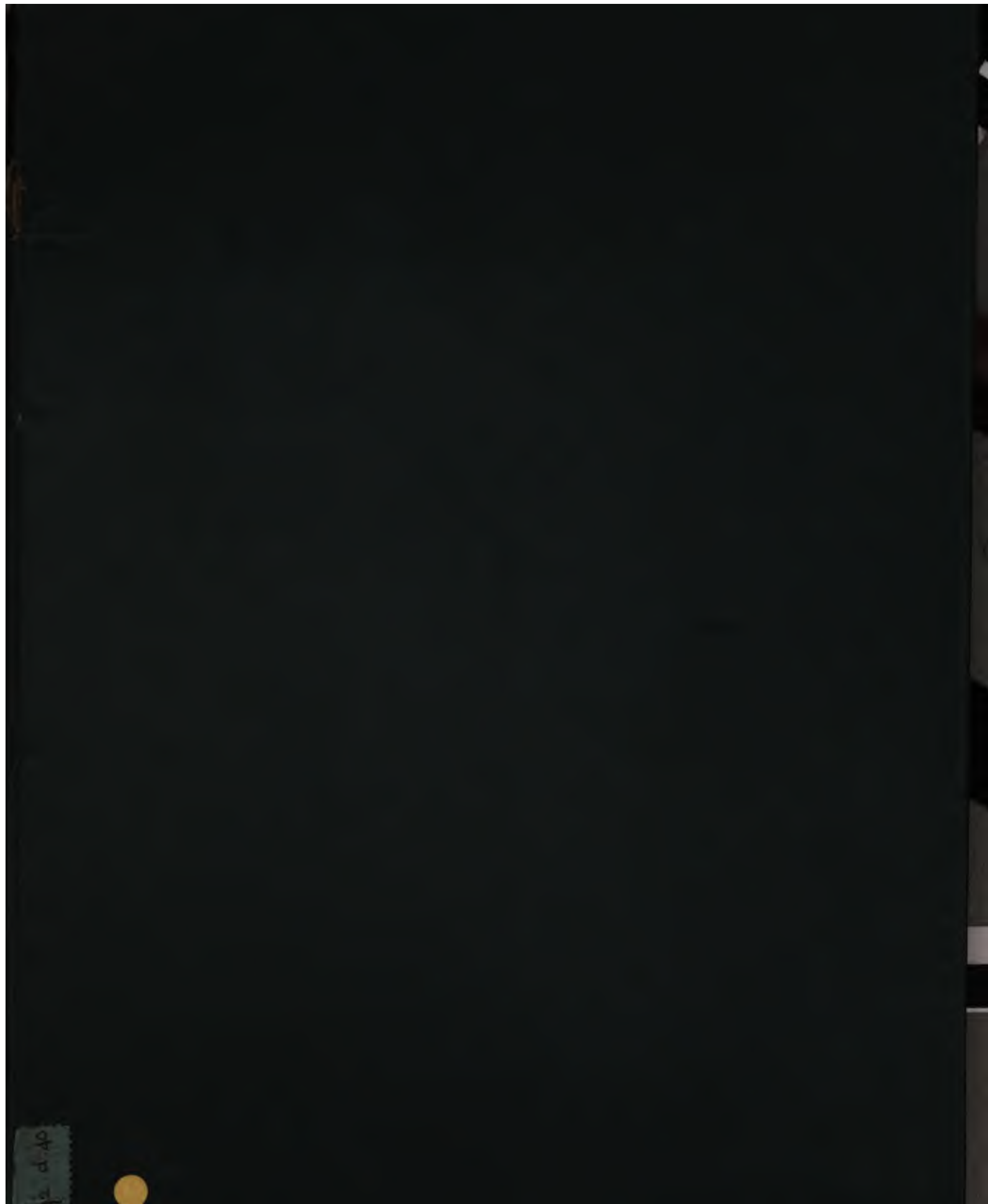
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THE  
HAHNEMANN  
MATERIA MEDICA.  
PART II.

CONTAINING  
URANIUM NITRICUM BY E. T. BLAKE, M.B.



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# URANIUM NITRICUM.

ARRANGED BY EDWARD T. BLAKE, M.B.

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## URANIUM NITRICUM.

I. CHEMICAL AND NATURAL HISTORY.—Uranium is a metal somewhat sparingly distributed over the surface of the earth in the minerals *pitch blend*, which consists of 79 to 87 per cent. of the black oxide mixed with silica, lead, copper, nickel, cobalt, and oxide of iron; *uran-mica* or *chalcolite*, which is a double phosphate of copper and uranium; and *uranite*, in which lime takes the place of the copper.

Uranium was discovered by Klaproth in 1789, and the metal was first isolated by Pélégot in 1840; the substance originally supposed to be the metal having been proved by him to be the protoxide. It was not obtained in the compact form until 1856. The metal is prepared by several processes, the most simple being by heating the protochloride with potassium. Uranium thus procured is of a white colour, to a certain extent malleable; it is not oxidized by water at ordinary temperatures, but if heated in the air it burns brilliantly, like magnesium.

A native *sulphate* has been found.

Sulphuric and hydrochloric acids dissolve it with the evolution of hydrogen. It forms three oxides: the suboxide,  $U_4O_3$ ; the protoxide,  $UO$ ; and the sesquioxide,  $U_2O_3$ .

The *suboxide* is little known. It is a green powder, obtained by heating the black oxide in a current of oxygen. It is soluble in dilute acids, but does not form salts.

The *protoxide* is made by heating the oxalate of uranium in a current of hydrogen, in close vessels. It is a black powder, which takes fire spontaneously on exposure to the air. It was formerly supposed to be the metal. In its anhydrous state it is insoluble in acids; but as a hydrate precipitated from its salts by ammonia, it is readily soluble, forming numerous salts of an interesting character.

The *sesquioxide* is the most important of the oxides of uranium.

It is somewhat difficult to prepare in a pure state. It combines readily with the acids, forming crystallizable salts of great beauty.

The *nitrate* is the source from which all the compounds of uranium are procured. It is prepared from *pitch blend* by solution in nitric acid; the lead, arsenic, iron and other impurities, being extracted by well-known means. It forms fine, yellow crystals, with a peculiar, green bloom running through them, and contains an equivalent of nitric acid united to an equivalent of the sesquioxide of uranium. It will be remembered that all other sesquioxides require three equivalents of acids to form neutral salts; the base of nitrate of uranium can therefore be only explained by supposing, with Pélégot, that a radicle *uranyl*,  $U_2O_2$ , exists, of which the supposed sesquioxide is a protoxide. The nitrate has been used as a photographic material, but without any very great success. Sesquioxide of uranium, when combined with glass, gives it a peculiar greenish-yellow colour of great beauty.

Besides the oxides named, there appears to be another, the black oxide or *protos sesquioxide*, which is much used as a black pigment in porcelain painting. It is formed by heating the protoxide to redness, or by igniting the proto-nitrate.

The *protochloride* of uranium is a volatile, deliquescent substance, crystallizing in dark, green octahedra, which is decomposed by water.

A volatile *subchloride* is also obtained.

When chlorine is passed over the protoxide at a red heat, a yellow, deliquescent, crystalline compound is formed, which has the composition  $U_2O_2Cl_2$ , or *chloride of uranyl*, strengthening the hypothesis of the existence of such a radicle. The other salts of uranium are very

interesting to the scientific chemist, from their anomalous composition and behaviour with re-agents, but cannot be described here. The sesquioxide seems capable of playing the part of an acid, and forms compounds with potash and soda. The facility with which many of the sesquisalts of uranium are transformed into protosalts by exposure to the sun's rays, has caused them to be greatly used in actinometric experiments. In many of its reactions, uranium greatly resembles iron and manganese. Like them, its sulphate combines with sulphate of potash, forming a double salt, which, however, is not an alum.

Besides the above, uranium unites with iodine, bromine, fluorine, and with sulphur. The following uranates have been described: uranate of ammonium, of barium, of silver, of sodium and of zinc.

*Contaminations and Adulterations.*—The salt may be contaminated with iron, arsenic, copper, potassium, sodium, lead, nickel, cobalt, phosphoric acid, sulphuric acid, free nitric acid, and with the ordinary impurities of the last acid.

## II. CHEMICAL LITERATURE & SOURCES OF KNOWLEDGE.

- Fownes' Chemistry*, 7th Ed., p. 331.  
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*Watts' Dictionary*, Vol. VII, p. 940.  
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*Stolba*, { *Zeitschr. Anal. Chem.*, III, 71.  
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*Wertheim, J. pr. Chem.*, XXIX, 209.  
*Ebelmen, Arm. ch. pharm.*, XLII, 286.  
*Rammelsberg's Mineralchemie*, p. 175.  
*Malagati, Comptes rendus*, XVI, 851.  
*Anthon, Dingl. pol. J.*, CLVI, 211.  
*Wysocki, Dingl. pol. J.*, CLV, 305.  
 For other references vide *Gmelin's Handbook*, IV, 157.



## EXPERIMENTS ON THE LOWER ANIMALS.

### Experiment I.

#### FULL-SIZED DOE RABBIT.

September 28th, 1867.—3 ss. introduced into stomach in solid form.

29th.—3 ss. introduced into stomach; coat looks rough.

30th, 9.30 A.M.—3 ss. of sat. sol. introduced into stomach; in quarter of an hour urinated freely; s.g. 1033; no sugar. Urinated again in the afternoon, no sugar; urinated again in the night, no sugar.

October 1st.—3 ss. of sat. sol.

2nd.—3 ss. of sat. sol.

3rd.—Died last night; was found lying on right side, with clear fluid flowing from mouth.

Post-mortem, October 3rd, 10.30 A.M.—*Rigor* marked.

*Stomach* largely distended with food; mucous membrane near the cardiac orifice is friable, with one hæmorrhagic spot; increased vascularity of great curvature; all the other organs were perfectly healthy, as proved by careful comparison with those of a similar undrugged rabbit killed at the same time.

Careful microscopical examination revealed no pathological change in any part of the kidneys.

### Experiments II. and III.

#### TWO YOUNG BUCK RABBITS OF THE SAME AGE.

October 9th.—To each 5 drops of 1st dec. dil.

10th.	Do.	do.
11th.	Do.	do.
12th.	Do.	do.

#### No. II.

October 12th, 11.15 A.M.

Gave 5 drops, which caused retching. After pressing lumbar vertebræ laterally between my finger and thumb, turned on its left side, as if moribund, and passed a stool. Left eyelids inflamed and agglutinated. Hepatic region seems tender, but there is no soreness on pinching kidneys sharply. Died in the middle of the day.

Post-mortem, October 14th, 10 A.M.

*Stomach*—Contains food thickly coated with viscid white mucus. *An ulcer as large as a hemp-seed, and surrounded by a red areola* on the great curvature half an inch from pylorus.

*Kidneys*—Right kidney very pale; left kidney dark (hypostatic)?

#### No. III.

October 13th.—Died last night.

Post-mortem, 14th, 10 A.M.

*Brain*—Ventricles healthy in both rabbits; no change in any part of either large or small brain or medulla.

*Spleen*—Very small, and pale in both.

*Liver*—In both of natural size and colour; gall-bladder nearly empty.

*Stomach*—Same as in No. 2 in every particular, but that the ulcer is one inch from the pylorus.

*Kidneys*—Capsules healthy in both animals—natural size; medullary layer of a much deeper colour than cortical; normal in structure in both rabbits; rest of genito-urinary apparatus healthy in both.

### Experiment IV.

#### MIDDLE-SIZED HEALTHY RABBIT.

October 17th, 11.30 A.M.—Injected 10 drops of sat. sol. into cellular tissue of right thigh.

18th.—Taken no food; lies on left side, making ineffectual attempts to rise; died that night.

19th.—Post-mortem, 10.30 A.M.

*Bladder*—Filled with pale urine of an alkaline reaction, with copious flocculent deposit, but containing no sugar; the fundus extends nearly to the umbilicus.

*Stomach*—Full of food; same mucous appearance; pylo-

rus congested; there is, about one inch from the pyloric end, and on the anterior surface of the stomach, a yellow patch, measuring half an inch, surrounded by a pink congested areola, much resembling the ulcerated surface observed in Nos. 2 and 3.

*Liver*—Lobules very distinctly seen on surface, on which appear a few pale vermiform markings, which prove to be tubes traversing the substance of the liver. Other organs perfectly healthy.



## Experiment V.

FULL-GROWN TOM CAT (left eye slightly inflamed).

October 22nd, 10.30 A.M.—Injected 1 drop of 1st dec. dil. under skin of right hind thigh.

24th, 10.30 A.M.—Injected 1 drop of 1st dec. dil. into left hind thigh.

25th.—Copious salivation; \* lachrymation from left eye; lids closed; when forced open, purulent, acrid matter flows out; marked photophobia.

26th.—Less salivation; eye better.

27th.—Still slightly salivated; eye well.

30th, 5 P.M.—5 drops of 1st dec. dil. into right fore thigh. No salivation; no marked tenderness in renal region.

November 1st, 10.30 A.M.—1 drop of sat. sol. into left fore thigh. Copious flow of clear, extremely viscid, alkaline saliva, which contains no sugar.

2nd, Mid-day.—Rectal temperature, 101.2°; slight salivation; discharge from eye has given him a sore cheek.

4th, 2 P.M.—5 drops of sat. sol. under skin between shoulders. Saliva contains no sugar.

8th, Mid-day.—20 drops of sat. sol. into right hind thigh. Urine is natural in quantity, acid, pale, turbid, contains sugar, with copious albumen and chlorides; does not slaver, except under the influence of terror; he is now much emaciated.

10th, Mid-day.—The coat is rough; purulent discharge from left nostril; no appetite; ineffectual tenesmus; cough; he trembles and totters when attempting to walk; died that night, lying prone.

11th, 9.30 A.M.—Post-mortem. Stomach and duodenum are full of dark blood.

*Stomach*—Contains no food; surface covered with spots of ecchymosis size of pins' heads.

*Duodenum*—In upper part are two large ulcers, with well-defined margins, surrounded by congested areolæ, and with adherent black coagula; one of these has nearly caused perforation.

*Rectum*—Full of very hard dung.

*Liver*—Has a crisp section; other abdominal organs quite healthy.

*Bladder*—Full of faintly-acid water, which is albuminous, but contains no sugar.

*Heart and Brain* are healthy.

*Lungs* can be inflated, except a large part of both lower lobes; these lobes float in water; grey, miliary spots are scattered over the surface, and on cutting through this part of the lung similar spots are seen, which, when placed under the microscope, look like gray tubercles.

## Experiments VI. and VII.

TWO YOUNG RABBITS, SAME LITTER.

## No. VI.

November 11th, Mid-day.—1 drop of sat. sol. in hind thigh.

14th.—Died last night; all the organs are healthy except the

*Stomach*—on the great *cul-de-sac* of which is an ulcer size of a small pea, surrounded by a florid, raised border; there are about 3ij. of pale yellow fluid in the abdominal cavity; this fluid coagulates when heated to 212° F.

## No. VII.

No drug was given to this rabbit, which was killed for the sake of comparison; its organs were found to be perfectly healthy.

## Experiments VIII. and IX.

TWO YOUNG RABBITS, SAME LITTER.

## No. VIII.

Died November 17th. Post-mortem, 10 A.M.

*Stomach*—A patch of congestion on upper border near pylorus. *Liver* healthy; gall-bladder full of bile.

*Kidneys* healthy; urine albuminous; † no sugar.

*Lungs, Heart, Brain and Spinal Cord* healthy.

## No. IX.

Died November 18th. Post-mortem, 10 A.M.

*Stomach* healthy. There is a small quantity of fluid in abdomen.

*Liver* slightly congested; gall-bladder full.

*Kidneys* healthy; urine contains neither sugar nor albumen.

*Lungs, Heart, Brain and Medulla* healthy; lower part of *Cord* seems slightly congested.

\* Salivation appears to be easily induced in cats.—Vide *Iris Versicolor*, Hale's *New Remedies*.

† Albumen is found normally in the urine of the rabbit.

## Experiment X.

## MIDDLE-SIZED MALE RABBIT.

November 22nd, 11.30 A.M.—Injected 5 drops of 1st dec. dil. into right hind leg.

24th.—Takes no food.

26th.—Died, lying on left side.

27th.—Post-mortem, 1.30 P.M.

Abdominal cavity contains nearly half an ounce of beer-coloured fluid, which coagulates by exposure.

Duodenum congested, especially towards pylorus.

Stomach thickened; whole of coat is so soft that it can be detached by gently rubbing it; extravasation under

mucous coat in several places along greater curvature (*post-mortem*?).

Kidneys healthy.

Liver natural; gall-bladder full.

Pericardium—Full of coagulated fluid resembling that in abdomen.

Heart—Right ventricle seems dilated.

Lungs healthy; *pleura* contain fluid.

Brain, Medulla and Spinal Cord healthy; Bladder empty.

## Experiment XI.

## FULL-GROWN FEMALE CAT (to be treated in precisely the same way as first Cat.)

November 25th.—1 drop of 1st dec. dil. under skin of right hind thigh.

27th.—1 drop of 1st dec. dil. into left hind thigh.

29th.—Great thirst; she has been vomiting this evening; the latter symptom continued, with intermissions, until death.

Died December 8rd. Post-mortem, 11 A.M.

Liver congested; gall-bladder full.

Abdomen—A great deal of coagulated fluid in the peritoneal cavity.

Stomach full of bile.

Duodenum inflamed through its whole tract.

Jejunum contains a *tænia*.

Ileum congested at upper portion; greatly inflamed at lower portion, which is full of coagula and segments of tape-worm.

Bladder moderately full; urine albuminous, slightly acid, but contains no sugar; all other organs healthy.

## Experiment XII.

## HEALTHY KITTEN (FEMALE) ABOUT THREE WEEKS' OLD.

December 12th, 1867, 10 P.M.—Injected 5 drops of 2nd dec. dil. into left hind thigh.

18th, 8.30 A.M.—Urine normal.

19th, 9.30 P.M.—Temp. 99.6° F.

25th, Mid-day.—5 drops of 2nd dec. into left thigh. Temp. 100.4°.

January 19th, 1868, 8 P.M.—Temp. 100.8°.

Feb. 19th, 9 P.M.—Temp. 102°. Injected 1 drop of 1st dec. into left fore leg; occasional vomiting.

March 10th, 9 A.M.—5 drops of 1st dec. between shoulders; nutrition is nearly arrested.

28th, 1 P.M.—5 drops of 1st dec. between shoulders.

April 1st, Mid-day.—5 drops of 1st dec. into right fore leg.

4th, Mid-day.—10 drops of 1st dec. into left fore leg.

15th.—Very thirsty the last few days; will drink any liquid, but rejects meat; much emaciated.

18th.—5 drops of 1st dec. under skin of lower abdomen; neither sugar nor albumen in urine.

May 15th.—Pithed at 3.30 P.M.—Bladder contained urine which was free from sugar and albumen; respiratory muscles exhibit marked tonic contractions, very evident vermicular movement of intestines; diaphragm active, even after respective section of—

1st, *Right Phrenic*, below the *pericardium*.

2nd, *Right Phrenic*, above the *pericardium*.

3rd, *Left Phrenic*, below the *pericardium*.

4th, *Left Phrenic*, above the *pericardium*.

*Right Cardiac Auricle* contracts rhythmically; *Spleen* healthy; *Stomach* distended by food; *Kidneys* pale, but healthy; *pericardium* contains too much fluid.

## Experiment XIII.

## KITTEN, SAME AGE, AND TREATED IN SAME WAY AS PRECEDING.

December 12th, 1867, 10 P.M.—5 drops of 2nd dec. dil. into left hind thigh.

16th.—Vomited white fluid.

17th, 10 A.M.—Died last night; marked *rigor mortis*.

Abdominal Cavity contains coagulable fluid and other traces of peritonitis.

Stomach moderately full of serous-looking fluid of a reddish-brown tint; its internal surface was coated with viscid mucus; pyloric end is much congested. The surface here is marked by arborescent vessels.

Duodenum full of bile; there is a good deal of congestion near ilio-cæcal valve.

Liver pale, but healthy.

Gall-bladder full.

Spleen healthy.

Kidneys healthy, but pale; cellular tissue surrounding them is infiltrated with a reddish jelly-like material.

Heart, Nervous Centres, and Respiratory Apparatus all healthy.



**Experiment XIV.**

KITTEN (FEMALE), SAME AGE, AND TREATED IN SAME WAY AS THE PRECEDING.

December 12th, 1867, 10 P.M.—5 drops of 2nd dec. dil. into left hind thigh.

18th, 9 A.M.—Died.

Examined at mid-day.

*Omentum* full of pink, jelly-like material.

*Stomach* healthy, much corrugated, pale, with two patches of congestion near pyloric orifice, superficial ulceration in

centre of one of these patches. Microscope revealed neither vibriones nor confervæ.

*Duodenum* healthy, full of yellow fluid.

*Jejunum* healthy, full of brown fluid.

*Ileum* slightly congested.

*Liver* healthy; *Right Heart* distended with blood; *Brain*, *Medulla*, and *Cord* healthy.

**Experiment XV.**

KITTEN, A FEW DAYS OLD.

May 15th, 1868.—1 drop of  $\theta$  into rectum.

18th.—2 drops of 2nd dec. dil. into right axilla.

21st.—2 drops of  $\phi$  into left axilla.

24th.—5 drops of  $\phi$  between the scapulæ. It now refuses to eat.

25th.—Five drops into peritoneum.

29th.—At mid-day it was found lying extended on left side.

*Liver and Spleen* congested.

*Alimentary Canal* healthy.

*Heart and Lungs* normal.

*Bladder* contracted.

*Peritoneum* contained purulent matter.

**Experiment XVI.**

KITTEN, SAME AGE AS PRECEDING, AND TREATED IN SAME WAY.

May 15th, 1868.—1 drop of  $\theta$  into rectum.

18th.—2 drops of 2nd dec. dil. into right axilla.

21st.—2 drops of  $\theta$  into left axilla.

24th.—5 drops of  $\theta$  between the scapulæ. It now refuses to eat.

29th.—Found dead, lying curled up on left side.

*Bladder* distended by amber-coloured urine, which was very albuminous, but contained no sugar.

*Large Veins* unusually full of blood.

*Alimentary Canal* healthy; round-worms in jejunum.

*Liver* congested.

*Lungs* healthy.

**Experiment XVII.**

KITTEN, SAME AGE AS THE PRECEDING, AND TREATED IN SAME WAY.

May 15th, 1868.—1 drop of  $\phi$  into rectum.

18th.—2 drops of 2nd dec. dil. into right axilla.

21st.—2 drops of  $\phi$  into left axilla.

24th.—5 drops of  $\phi$  between the scapulæ. It now refuses to eat.

29th.—Died; all organs healthy.

*Urine* slightly albuminous, pale in colour; it contains no appreciable trace of sugar.

*Jejunum* contains round-worms.

**Experiment XVIII.**

SMALL SPANIEL PUP.

April 22nd, 1868, 7 P.M.—Injected 5 drops of  $\phi$  under skin of right axilla.

8 P.M.—Pulse 84; respiration 32.

23rd.—Died this morning; was found lying on left side.

2 P.M.—Was opened.

*Bladder* healthy, moderately full of acid, opaque urine, which contained neither albumen nor sugar.

*Liver and Gall-bladder* fairly healthy, perhaps slightly congested.

*Stomach* perfectly healthy, contained three round-worms and some grumous material.

*Intestines* contained much mucus and far more lumbrici.

*Pericardium* contained much yellow fluid.

*Heart*—Cavities stuffed with dark clots.

*Lungs*—Left, congested (hypostatic); right, full of froth, which oozes forth freely from the incised surface. This lung is much more collapsed than the left.

*Brain and Medulla*, &c., quite healthy.

## Experiment XIX.

## TERRIER PUP.

May 15th, 1868.—5 drops of  $\phi$  into right hind leg.  
10 A.M.—Passed  $\frac{1}{2}$  oz. of urine, which was tested at  
1 P.M., found to be neutral in reaction, free from sugar  
and albumen.

18th, 6 P.M.—Neither albumen nor sugar in urine.

20th.—Urine same.

June 10th.—10 drops of  $\phi$  into left hind thigh.

20th, mid-day.—Neither sugar nor albumen.

23rd, 8.30 P.M.—5 drops of  $\phi$  into right fore thigh.  
Takes a little milk.

26th.—Large abscess in thigh, which was dressed with  
*uran. nitrat.* 1x. The dog eats nothing.

29th, 1.30 P.M.—Urine slightly acid, but it contains  
neither sugar nor albumen.

6 P.M.—Urine the same; passed some *faecal matter*,  
orange coloured, and of a jelly-like consistency. I am  
indebted to W. Lascelles Scott, Esq., for the analysis of  
this *faecal matter*. It was found to be more *albuminous*  
than average, and perhaps a little poorer in *phosphates*; no  
*lactin* could be found, but distinct traces of *glucose* were  
present.

Pithed on the 30th, and, with the exception of the *lungs*  
and *kidney* being a little anæmic (starvation), every organ  
was perfectly normal.

I cannot permit this opportunity to be lost, of expressing my gratitude to Dr. Eagleton and to Messrs.  
A. De Lessert and Lascelles Scott, for their valuable assistance in performing the preceding experiments; assistance  
which was always rendered with so much kindness and courtesy.

E. T. B.

## SUMMARY OF PATHOLOGICAL ACTION.

THE MOST COMMON SYMPTOMS AND CONDITIONS OF NINETEEN OF THE SUBJECTS OF OBSERVATION,  
ARRANGED IN THE ORDER OF THEIR FREQUENCY.

	KIND OF ANIMAL.					TOTAL NUMBER.
	Male Prover.	Rabbits.	Cats.	Kittens.	Pup.	19
Pylorus diseased in .....	...	9	1	...	...	10
Ascites.....	...	8	1	2	...	6
Albuminuria .....	...	1	2	2	...	5
Pyloric Ulceration .....	...	8	1	...	...	4
Hydro-pericardium .....	...	1	...	1	1	8
Vomiting (none of the drug having been intro- duced into the <i>primæ viæ</i> ) .....	...	...	1	2	...	8
Thirst .....	...	...	1	1	...	2
Frequent Micturition .....	1	1	...	...	...	2
Eyes affected .....	...	1	1	...	...	2

Average duration of life in the animals, 5·8 days.

### SUMMARY OF MORBID APPEARANCES.

*Brain* never affected.

*Medulla oblongata* not once affected.

*Spinal Cord*—Lower portion slightly congested. R. IX.

*Eyes*—Left lids inflamed and agglutinated. R. II.

Lachrymation from left eye, lids closed; when forced open, purulent, acrid matter flowed out; marked photo-

phobia (eye slightly inflamed before drug exhibited) on the 11th day; ocular discharge caused deep ulceration of cheek.

*Mouth*—Ulcer with one elevated hard side on buccal aspect of left cheek, opposite left anterior upper molar. M. P.

*Stomach* generally distended with food partially digested; in three Rs., II, III, and IV, and in one K., XV, the mucus was found to contain only mucous corpuscles and epithelial cells.

Mucous membrane friable in R. I.

Coats thickened; whole of mucous coat is so soft that it could be detached by gentle rubbing.

Hæmorrhagic spots (perhaps *post-mortem*) in six, viz., R. I, R. IV, C. V, R. VIII, R. X, and K. XIII.

Full of bile. C. XI.

Full of reddish-brown fluid. K. XIII.

Ulcer size of hemp-seed. R. II, R. III.

Ulcer size of pea. R. VI.

Superficial ulceration. K. XIV.

**INTESTINES.** *Duodenum*—In upper portion two large ulcers with well-defined margins, surrounded by congested areolæ and with adherent black coagula; one of these had nearly reached the point of perforation. C. V.

*Duodenum* congested. R. X.

*Duodenum* full of bile. K. X.

*Duodenum* full of yellow fluid. K. XIV.

*Jejunum* healthy in each instance.

*Ileum* congested at upper portion; greatly inflamed at lower portion, which was stuffed with coagula and segments of tænia. C. XI.

*Ileum* slightly congested. K. XIV.

*Peritoneum* contained about 3 ij of pale yellow fluid, which coagulated with heat. R. VI.

*Peritoneum* contained a small quantity of fluid. R. IX.

*Peritoneal sac* contained nearly half-an-ounce of beer-coloured fluid, which coagulated by exposure. R. X.

*Peritoneum* contained much fluid, which had coagulated before autopsy made the same day. C. XI.

*Abdominal cavity* contained coagulable fluid and other traces of peritonitis. K. XIII.

*Peritoneum* contained purulent matter [four days before, gtt. v of  $\theta$  had been injected into the abdominal cavity]. K. XV.

*Liver* congested. R. IX, C. XI, K. XV, K. XVI.

*Spleen* congested. K. XV.

*Kidneys* pale. R. II.

Tint of medullary layer deepened. R. III.

Pale. K. XII.

Pale colour; the peri-renal cellular tissue was infiltrated with reddish jelly-like material. K. XIII.

*Bladder* distended, reaching nearly to the umbilicus; full of pale urine of alkaline reaction, and with copious flocculent deposit. R. IV.

*Bladder* full of faintly acid water, which was albuminous, but contained no sugar. C. V.

*Urine* albuminous, no sugar. R. VIII.

*Bladder* moderately full; urine albuminous, slightly acid, but contained no sugar. C. XI.

*Bladder* contained urine which was free from sugar and albumen. K. XII.

*Bladder* contracted. K. XV.

*Bladder* distended by amber-coloured urine, which was very albuminous, but contained no sugar. K. XVI.

*Urine* slightly albuminous, pale in colour; it contained no appreciable trace of sugar. K. XVII.

*Bladder* healthy, moderately full of acid, opaque urine, which held neither albumen nor sugar in solution. Pp. XVIII.

*Lungs* could be inflated, excepting the major part of both lower lobes. These lobes floated in water; grey, miliary spots were scattered over the surface; and on cutting through in any direction, similar spots were seen, which, when placed under the microscope, looked like grey tubercle. C. V.

*Pleura* contained fluid. R. X.

*Left Lung* congested (? hypostatic). Right lung full of froth, which oozed out freely from the cut surface. This lung was much more collapsed than the left. Pp. XVIII.

*Heart*—Right ventricle dilated; pericardium full of coagulated, beer-coloured fluid. R. X.

*Pericardium* contained too much fluid. K. XII.

*Right Heart* distended with blood. K. XIV.

*Large Veins* unusually full of blood. K. XVI.

Cavities stuffed with dark clots; pericardium contained much yellow fluid. Pp. XVIII.

## PROVINGS ON THE HUMAN SUBJECT.

### PROVING I.

Young man, æt. 25. Nervo-bilious temperament; weak skin-action; feeble secondary digestion; tendency to intestinal blenorrhœa, with ascarides; inward piles; slight emphysema; occasional œdema of lower lids.

The Capital (D) affixed to a symptom signifies that there is good ground for doubting whether it be the result of the drug.

The dilutions quoted in the Experiments and Provings were in all cases reduced from a saturated, aqueous solution, which represented  $\Phi$ .

The urine was daily tested for sugar, either by the reaction of Moore or of Fehling.

1867	Hour.	Quantity of Drug.	Specific Gravity of Urine.	Amount of Urine in 24 hours.	SYMPTOMS, &c.
June 6	...	1 drop of 2nd dec. dil.	82	...	Urine healthy.
7	...	2 drops.	20	...	
11	...	5 "	...	...	
12	...	6 "	...	...	Head heavy on waking; general languor; aching at occipital protuberance; dry coryza; left nostril stuffed; itching in nose; styte in left upper lid; constipation.
	Evening.	...	...	...	Occipital and frontal headache.
18	...	7 "	...	...	Trace of albumen; urine acid; no appetite.
14	...	8 "	25	...	Urine amber colour; flocculent; very slightly acid.
15	...	9 "	82	...	Woke with occipital headache; <i>vertigo</i> twice in the evening.
16	2.80 P.M. Night.	10 "	25	...	Ill temper; he is cross with everybody; œdema of lower lids worse than usual; no albumen; no phosphates nor lithates; stiffness in loins.
17	...	11 "	...	...	Woke at 2 A.M. with urgent desire to evacuate bladder and rectum; borborygmi; small, soft stool.
18	...	12 "	85	...	Small painless ulcer, with one elevated side in buccal aspect of left cheek, opp. left ant. upper molar.
19	...	18 "	24	...	Ulcer more tender; worse in evening; no apparent increase in quantity of urine.
20	...	14 "	40 (stale).	...	Inside of cheek very sore.
21	...	15 "	80	...	Ill-humour; ache in forehead; cheek better; anal pruritus [D].
22	...	...	22	...	
23	...	16 "	25	...	Cheek better; cutting feeling at back of fauces [D]; ten micturitions in 24 hours.
24	...	...	80	...	Slight burning in urethra [D]; in evening pain shooting from right orbit to the occipital protuberance.
25	...	17 "	81	...	Frontal headache [D]; anal pruritus [D]; nine micturitions in 24 hours.
26	...	...	...	...	Frontal headache.
27	...	18 "	25	...	Small quantity of phosphates.
28	...	...	27	...	Languid.
29	...	19 "	27	...	No sugar (either by Moore or Fehling).



1867	Hour.	Quantity of Drug.	Specific Gravity of Urine.	Amount of Urine in 24 hours.	SYMPTOMS, &c.
June 30	...	...	84	83 oz.	Excessive flatulency in stomach and bowels [D] ; saliva and urine highly acid ; sore pain in vesical region in evening ; burning in urethra.
July 1	...	20 drops of 2nd dec. dil.	80	...	Desire to urinate again immediately after voiding the bladder.
2	...	...	84	24 oz.	Extreme languor on rising from bed ; fishy odour of urine.
3	...	21 „	27	88 oz.	Hawking of very tenacious mucus.
4	...	...	24	...	Highly acid ; sugar, albumen, phosphates and lithates all absent.
5	...	22 „	25	40 oz.	
6	...	...	30	30 oz.	Very cloudy ; deep amber colour ; slightly acid ; no sugar ; no salts.
7	...	...	28	81 oz.	Slightly acid.
8	...	...	85	24 oz.	No albumen ; much mucus.
9	...	...	88	...	
10	...	...	81	28 oz.	
11	...	...	80	81 oz.	
12	...	24 „	25	29 oz.	
13	...	...	24	22 oz.	Acid.
14	...	...	25	24 oz.	Nostrils sore [D].
15	...	...	32	...	Small scab in right nostril, with soreness [D].
16	...	30 „	27	...	Lids much swollen in morning [D].
17	...	40 „	27	48 oz.	Pain at lower angle of left scapula, aggravated by taking a deep inspiration [D].
18	...	50 „	25	50 oz.	
19	...	60 „	23	42.5 oz.	Copious deposit of phosphates (having read all night).
20	...	70 „	26	25 oz.	Phosphates less [D].
21	...	80 „	28	88 oz.	
22	...	90 „	27	89 oz.	
23	...	100 „	30	26 oz.	Pulse, lying, 69 ; standing, 74.
24	...	110 „	27	26 oz.	Dull aching in right temple immediately after taking.
25	...	5 drops of sat. sol.	22	36 oz.	Acid.
26	A.M.	...	82	40 oz.	High-coloured and turbid ; more than usual chlorides ; no lithates.
	11.45 P.M.	80 „	...	...	In five minutes slight pain over left eye ; tasteless eructations.
27	11 P.M.	60 „	25	81 oz.	
	12 P.M.	...	...	...	Pain over left eye.
28	1 A.M.	...	...	...	Contracted feeling in throat ; eructations.
	1.45 A.M.	...	...	...	Micturated for the second time since 11 P.M. yesterday ; sore feeling in pubic region.
	2.30 A.M.	...	...	...	Micturated for the third time.
	8.30 A.M.	...	...	...	Micturated for the fourth time ; 22 oz. since 11 P.M. of 27th.
	9 A.M.	...	...	...	Soft stool.
	10.30 A.M.	...	...	...	Micturated for the tenth time.
	6.30 P.M.	...	...	...	Micturated for the eleventh time.
	8.30 P.M.	...	14	81 oz.	Micturated for the twelfth time in 21½ hours.
29	...	...	82	...	
30	...	...	30	...	
31	...	...	27	...	
Aug. 3	10.30 P.M.	Solution containing ¼ oz. injected into rectum.	27	...	Chlorides and phosphates plentiful ; no lithates. Solution forcibly returned in 20 minutes, causing sharp colic and tenesmus, with raw feeling in rectum, followed during sleep by an unconscious seminal emission.
4	6 A.M.	...	...	...	20 oz. of urine have been passed since 10.30 last night ; of Sp. Gr. 1015 ; copious chlorides ; less phosphates.
	5 P.M.	...	80	...	
	9.30 P.M.	...	80	...	

*Specific Gravity.*

Normal average .....	1026	Normal maximum .....	1032
Whilst taking drug.....	1028	Whilst taking drug.....	1038

*Quantity of Urine in Twenty-four Hours.*

Normal average .....	29 oz.	Normal maximum .....	37 oz.	Normal minimum .....	24 oz.
Whilst taking drug .....	32 oz.	Whilst taking drug.....	50 oz.	Whilst taking drug .....	24 oz.

## PROVING II.

Young female prover, with chronic albuminuria, and tendency to dysmenorrhœa, July 18th, 1867.

1867.	Quantity of Drug.	Specific Gravity of Urine.	Amount of Urine in 24 hours.	SYMPTOMS, &c.
July				
18	2nd dec. dil.	1015	41½ oz.	
19	...	1012	54 oz.	
20	...	...	42 oz.	
21	50 drops.	1012	50 oz.	
22	60 „	1022	38 oz.	Copious albumen. A few small white vesicles, with red areolæ, on hands and legs; they burn and itch. Tight feeling round waist.
23	100 „	1017	28 oz.	No sugar.
24	110 „	1010	48 oz.	Neither sugar nor albumen; debility, cold feeling, vertigo; red spots on hard palate, which feels raw; breasts turgid, tender, with burning pain; pain in nape of neck; pain all over abdomen.
25	10 drops of sat. sol.	1015	48 oz.	No sugar; only a trace of albumen.
26	...	1015	...	No sugar nor lithates, but copious chlorides.
28	Before the catamenia.			Heavy, burning pain right side of vertex; clothes feel very tight; fulness in head, with orgasm; cold feet; restless night; diarrhœa.
29	During the catamenia.			More copious than usual, with dark clots; giddy and faint; great prostration and drowsiness; shivering; vomiting, with much nausea; no appetite; diarrhœa, followed by perspiration and flushing of upper body; borborygmi, with violent pains in abdomen.

*Specific Gravity.*

Normal average .....	1022·7	Normal maximum.....	1082
Whilst taking the drug .....	1025	Whilst taking drug .....	1089

*Quantity of Urine in Twenty-four Hours.*

Normal average .....	32 oz.	Normal maximum .....	45 oz.	Normal minimum [about] 14 oz.	
Whilst taking drug.....	34 oz.	Whilst taking drug.....	39 oz.	Whilst taking drug.....	28 oz.

## PROVING III.

G. C., male, æt. 31. Average height; spare; sanguine temperament; dark-brown hair; circulation slow; prone to chilblains; pulse usually feeble—58 to 62 sitting; delicate in childhood, but no especial diseases; health good during the past four years; before that time subject to neuralgia, with occipital pains [from mental over-work];

has never had any renal nor urinary disorder of any kind.

*Present State.*—Appetite good; no thirst; no symptoms whatever of dyspepsia; no pains nor aches; the excreta are natural in every respect; in a good state of general health.

October 7th.—Began experiments by testing urine passed on rising. Clear, amber tint; quantity about  $\frac{1}{2}$  pint. On standing till night it deposits no sediment; acid to test-paper in the morning: less so at night.

*Microscopic Examination.*—No abnormal amount of lithates nor of any other deposit. Not the slightest trace of sugar, either with Fehling's or with Trommer's tests.

5 P.M.—One hour after dinner; s. g. 1032. A slight sediment in the evening of bladder-epithelium [had been riding on horseback for one hour and a half before dinner].

10 P.M.—S. g. 1026. Pale yellow, about 14 oz.; no deposit the next night.

October 10th.—Examination of urine was repeated. *Urina sanguinis*, s. g. 1019; higher colour; slight microscopic deposit of urate of ammonia.

Afternoon and Evening.—Nearly the same as above; nothing abnormal: neither sugar, pus, nor mucus.

14th.—Taken cold slightly; headache, with nasal catarrh; dry skin; rigors. [Ars. 3, taken]. Urine increased in

quantity and frequency, but seldom passing more than 30 to 35 oz. a day, and, as a rule, only at the following periods:—On rising, at stool, about 11 A.M., and at bedtime. This rule is disturbed by the ingestion of wine or spirits, which, however, are rarely taken.

Passed 45 oz. higher in colour.

*Morning urine*, sp. g. 1018; more acid; uric acid crystals, and urate of ammonia increased at night.

*After dinner*, slightly acid (unusual); s. g. 1026, paler; three times after till 11.30 P.M.; lighter colour, s. g. 1016, acid; a little more mucus and lithic acid than usual. No sugar nor pus.

17th.—Cold nearly gone; urine more natural in every way.

21st.—*Urina sanguinis*, s. g. 1021; healthy colour; no abnormal deposit; *urina chyli*, very slightly alkaline.

*Morning urine*, s. g. 1025; higher colour, 36 oz. in all; common s. g. 1023. No trace of sugar by the two tests; no change with acids nor with liq. potass. No abnormal mucus nor epithelium, &c.

#### COMMENCEMENT OF EXPERIMENTATION WITH DRUG.

October 22nd, 1870.—*Uran. Nit.* 30x. gtt. v., for a fortnight, every morning on rising; breakfast  $\frac{3}{4}$ -hour after.

	Average Sp. Gr.	Amount in 24 hours.	Colour.	SYMPTOMS, &c.
Oct.				
22	1024	38 oz.	Pale.	Natural, as on 21st.
23	1026	32 oz.	...	
24	1028	30 oz.	...	
25	1028	30 oz.	High-color'd.	Examined; no alteration; rather more acid; a slight frontal headache (called up previous night); no change in stomach; no pains.
26	1025	34 oz.	...	
27	1028	32 oz.	...	
28	1027	...	...	
29	1023	39 oz.	Paler.	No sugar, mucus, nor pus.
30	No medicine.		...	
31	1024	37 oz.	...	Slight frontal headache [D].
...	1026	37 oz.	...	Examined urine. Having ridden 14 miles before dinner, slightly more mucus in urine.
Nov.				
1	1025	37 oz.	...	
2	1025	37 oz.	Higher.	Bowels moved twice; no other symptoms.
3	1020	30 oz.	Higher.	Warmer day; more perspiration.
4	1022	36 oz.	Paler.	Feeling very bright and well.
5	No medicine.		...	

Examined urine of yesterday; healthy in colour; very slight cloud near the bottom of the glass; a few scattered urate of soda crystals under  $\frac{1}{4}$  in. lens; here and there a dumb-bell, but very indistinct, and this in only two specimens out of five; no really abnormal change; no head-symptoms; no gastric, renal, nor intestinal disorders; slight restlessness one or two nights [due probably to the anticipation of being called out].

9th (Evening).—At the end of three days examined urine of previous days, s. g. 1028, some bile in it, very unusual; and on the same day [9th] a fit of dyspepsia, flatus after

food, acidity, pain from cardiac extremity of stomach to supra-renal region, relieved by movement, lasted all day, then gradually disappeared; bowels slightly moved; paler, clay-like fæces; no change in diet. [Query.—If from medicinal action, as I have had such attacks to a slight degree before.

10th, 11th.—Better; no change in urine; digestion, colour of stools, urine, &c., all natural. None of the drug taken.

Professional occupation here interrupted the observations during a period of ten days.



November 24th.—*Uran. Nit.* 6x, gtt. v., every day  $\frac{3}{4}$ -hour before breakfast. State of health, the same as at the commencement.

	Average Sp. Gr.	Amount in 24 hours.	Colour.	SYMPTOMS, &c.
Nov. 25	1026	36 oz.	High.	A few lithates on standing.
26	1024	32 oz.		
27	...	...		
28	1026	35 oz.		Evening; ur. cloudy; more mucus than usual; here and there a cast ( $\frac{1}{4}$ -inch glass); uric acid crystals (uncertain pus or blood-cells in two specimens out of five). Feeling as if taken cold (no exposure); headache, left temple; radiating pain from left side of ensiform cartilage (comp. <i>Arg. Nit.</i> ), coming and going for last two days; agg. by fasting; no app.; flatus; slight constip.; faeces natural in colour.
29	1024	32 oz.	High.	No action of bowels; no stomach pain.
30	1024	36 oz.	Paler.	Bowels moved slightly.
Dec. 1	1020	28 oz.	High.	Feeling of cold from exposure.
2	1025	34 oz.		Urine normal, with the exception of a slight increase of mucus, perhaps from a cold which seems to be hanging about me. Return of epigastric pain as above, with occasional twisting, screwing feeling rather lower down; relieved by food.
3	1026	38 oz.		
4				Taken a violent cold, from exposure to wet, &c.; headache; sore throat, which lasted four days, leaving me feeling well on the 8th, with the exception of a slight cough in the morning on rising, accompanied by expectoration, which affords relief; urine quite healthy.
8				[Omit drug till 16th.]
9				Healthy; increase of lithates.
13				Urine normal.
15				Urine natural; general health good.
16	1021	30 oz.		<i>Uran. Nit.</i> 2x, gtt. v., every day $\frac{3}{4}$ -hour before breakfast.
17	1018	30 oz.		Urine deposits a thick, mucous sediment, acid in passing, soon becoming alkaline and offensive, containing a large quantity of uric acid crystals, and lithate of ammonia, with pavement epithelium. No sugar nor albumen. A return of indigestion in the afternoon about $\frac{1}{4}$ -hour before dinner, with gnawing-sinking at cardiac end of stomach; not hungry nor faint; very restless at night with shivering and heat; no symptoms of cold.
18	1020	34 oz.	High.	Urine much like the above. Some slight pain in head again, similar to my old neuralgia. The pain always used to be on the <i>right</i> side, at the post-edge of the temporal bone; now this day it lasted severely from 2 to 4 p.m. in the same spot, but on the <i>left</i> * side, followed by dull aching.
19	1024	36 oz.	High.	Awoke about 1 a.m. with pain in head again, similar to former attack, lasting 1 hour, and preventing sleep; ill from pain during the day.
20	1020	32 oz.	High.	Cross and disagreeable, not feeling well all day; no particular symptoms.
21	1021	34 oz.	High.	Urine.—Thick, muco-purulent-looking sediment after standing all night; deposit consists of urates and mucus,—no pus corpuscles; phosphates more abundant than usual; no glycosuria; no pain, but headache in old place (right side) severe till after dinner; came on gradually, soon relieved by food; putrid eructation about 11 and 8.
22	1025	38 oz.	Paler.	
23	1025	38 oz.	Pale.	

24th.—Took the last quantum of drug.

25th.—Examined urine with great care. Muco-purulent appearance on standing; this material dissolves on boiling.

Phosphates more abundant; no albumen nor sugar by either test; no headache for two days; appetite good; bowels regular.

*Specific Gravity.*

Normal average.....	1023	Normal maximum.....	1032
Whilst taking drug.....	1028	Whilst taking drug.....	1028

*Quantity of Urine in Twenty-four Hours.*

Normal average.....	35 oz.	Normal maximum.....	45 oz.	Normal maximum.....	14 oz.
Whilst taking drug .....	35 oz.	Whilst taking drug .....	39 oz.	Whilst taking drug .....	28 oz.

\* The key-note of this drug appears to be "left clavus." Witness its recurrence in Proving I.



## SUMMARY OF THE PHYSIOLOGICAL ACTION, WITH THERAPEUTICS.

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### GENERAL ACTION.

Like most of the metallic salts, this drug is a pure irritant, showing a marked specific relation to the alimentary organs and to the serous membranes, especially the peritoneum, lastly, inducing renal disturbance as a more remote and, perhaps, reflex effect. Its characteristic reactions are concentrated on the abdominal viscera; and of those viscera the STOMACH or DUODENUM were observed to suffer in as many as 50 per cent. of the animals experimented upon.

Ten rabbits were treated with the drug; in every rabbit, with the exception of one, there was some deviation from the normal state to be seen in the pyloric end of the stomach.

In the case of three of these rabbits there was found gastric ulcer, in each instance deep, well-defined, and solitary.

In the case of one of the cats (Experiment VII), two ulcers were discovered in the duodenum.

That these were true pathogenetic phenomena there seems no ground for doubting;—that they exhibit an idiopathic relationship appears to be indubitable, as the effects were seen in the alimentary canal when the salt was introduced into the areolar tissue of a distant point, as, for example, the lower extremity.

The experiments detailed above lead to the following conclusions:—

1st. That Nitrate of Uranium does not possess the glycogenic powers attributed to it.

2nd. That the Nitrate of Uranium exerts a specific action on the circulation of the stomach and duodenum, in that respect resembling Kali Bichromicum and Arsenic (perhaps Argentum Nitricum).

3rd. That that action which is frequently ulcerative is displayed to the most marked degree in the neighbourhood of the pylorus.

Thus it will be seen that the sanguine hopes entertained by some that this drug would prove a specific in GLYCOSURIA, have not been supported, so far, by actual experimentation. The *clinical* evidence in favour of such expectation will be found in the following columns.

Thus far, the general feeling amongst homœopathic physicians is, that Phosphoric Acid remains our sheet-anchor.

### GASTRIC ULCER.

This remedy will probably rank high in the treatment of Gastric Ulcer.

### BURN.

Either this drug or the Bichromate of Potash should be given to ward off the tendency to death after severe, cutaneous burn, which was observed by Curling to be accompanied by duodenal ulcer.

### CHRONIC DUODENITIS.

What Chamomilla is to Acute Duodenitis, this drug and Kali Bichromicum may prove to be to the chronic condition.

### HÆMATEMESIS.

In Hæmatemesis and Pyloric Cancer it deserves a trial.

### ASCITES.

Ascites was caused in 6 out of 19 animals, or in nearly one-third.

In those cases of ascites connected with tumour pressing on the vena portæ, it well deserves a trial as palliative; also in idiopathic ascites which resists the ordinary remedies.

Where Arsenic loses its power in Hydro-pericardium, we may have recourse to this medicine.

### LUPUS EXEDENS, EPITHELIOMA.

Also in Lupus Exedens, commencing in the ala of the nose and in Epithelioma springing from the canthus.

## ALBUMINURIA.

ALBUMINURIA appears likely to be benefited by the use of this remedy, especially that form of the complaint that accompanies cardiac disease and pregnancy; indeed, Bright's Disease seems to come, to a far greater extent than Diabetes, into the domain of this drug.\*

The disordered stomach, the nocturnal diuresis, the cardiac complications, all point far more in the direction of chronic, organic, renal degeneration than to glycosuria.

## VOMITING.

Although Vomiting was only thrice observed, as a

symptom it is far more valuable than fifty vomitings after the drug had been swallowed; for it is to be remembered that in each case the salt had been introduced under the skin of the limbs only. It is, therefore, manifestly an idiopathic effect.

## THIRST.

THIRST.—The same may be said of this symptom; it is purely pathogenetic, though only occurring twice.

## BLEPHARITIS.

In BLEPHARITIS, with agglutination, it may be found useful.

\* The urine of 4 cats and 1 rabbit became albuminous. (Quaglio caused the urine of cats to become albuminous by administering Arsenic. Albumen is secreted normally by the rabbit.) For much valuable information on the matter of albuminuria, *vide* Paper read before B. H. S., by Dr. Gibbs Blake, published in the "Annals" of the Society, vol. iii., p. 467.—[E. T. B.]

# THE PROVING, IN NUMBERED PARAGRAPHS, WITH REMARKS AND CONCORDANCE.

## SYMPTOMS OF NITRATE OF URANIUM.

M. P.	...	...	...	1st Male Prover.	C.	...	...	...	...	...	Cat.
F. P.	...	...	...	Female Prover.	K.	...	...	...	...	...	Kitten.
G. C.	...	...	...	Third Prover.	Dg.	...	...	...	...	...	Dog.
D.	...	...	...	Considered doubtful by Prover.	Pp.	...	...	...	...	...	Pup.
R.	...	...	...	Rabbit.	Exp.	...	...	...	...	...	Experiment.

N.B.—The following Schema is adopted, almost entirely, from that of Dr. DRYSDALE, to whom I am deeply indebted for so ingenious and accurate an example. The symptoms are given in groups, in the natural order of their occurrence; and are arranged in the same order as Hahnemann's provings.

In the Concordance the correspondence only *necessarily* applies to the word before which the letter of reference is placed; if the letter be placed at the end of a clause, or sentence, it applies to the whole clause, or sentence. Although, theoretically, every drug should be named in the Concordance that has produced the symptoms to which attention is drawn by the small lettering, yet, to do so, would, manifestly, be to destroy the practical utility of the Concordance, and to swell the margin to a disproportionate size. So I have avoided all long lists, and have selected remedies as much for their *clinical*, as for their *pathogenetic* value.

The Index and Analysis have not been rejected on account of their want of value; I consider them the most precious part of the three published provings; but from the dearth of symptoms in the case of this particular drug.

### Head and Sensorium.

<sup>a</sup> Nx. v. Petrol. (fast-  
ing.) Arn. Con.  
Clem. Croc.

1. Head heavy on waking; <sup>a</sup> general languor; aching at occipital protuberance; occipital and frontal headache. (M. P., gtt. vi., 2<sup>x</sup>.)

2. Woke with occipital headache; vertigo twice in evening; <sup>b</sup> (M. P., gtt. ix. 2<sup>x</sup>.)

3. In the evening pain shooting from right orbit to occipital protuberance. (M. P., gtt. xvi. 2<sup>x</sup>.)

4. Frontal headache for two days. D. (M. P., gtt. xvii. 2<sup>x</sup>.)

5. Dull aching in right temple immediately after taking. (M. P., gtt. cx. 2<sup>x</sup>.)

6. Five minutes after taking gtt. xxx. of saturated solution, slight pain over left eye; (M. P.)

7. Pain over left eye, <sup>c</sup> with contracted feeling in the throat, and eructations, followed by diuresis. (M. P., gtt. lx. sat. sol.)

8. Debility, cold feeling, vertigo. (F. P., gtt. lx. 2<sup>x</sup>.)

9. Heavy, burning pain right side of vertex; fulness of head and sensation of blood-flowing to that part before cat. (F. P., gtt. x. sat. sol. 3 days before.)

10. Giddy, <sup>d</sup> faint, <sup>e</sup> flushing of upper body during the catamenia. (F. P., gtt. x. of sat. sol. 4 days before.)

11. Headache in the left temple, with feeling as if he had taken cold, though there had been no exposure. (G. C., gtt. v. 6<sup>x</sup>.)

12. Severe pain at posterior edge of left temporal bone lasting from 2 to 4 p.m., waking him at 1 a.m., and preventing sleep for an hour. (G. C., gtt. v. 2<sup>x</sup>.)

13. Pain at posterior edge of right temporal bone coming on gradually in the morning, relieved by dinner. (G. C., gtt. v. 2<sup>x</sup>.)

<sup>d</sup> Verat. a.  
<sup>e</sup> Nx. v. Berb. Ign.

<sup>b</sup> Ars. Calc. Magn.  
Natr. s. Nit. ac.  
Phos. ac. Plat. Puls.  
Sulph.

<sup>c</sup> Kali Bich. (Over  
right eye, Chelid.)

REMARKS.—The most specific effect of this drug is to cause *pain over left eye*; this occurred twice in M.P. This is a less important instance of the analogy between this drug and Kali Bichrom.

Pain was felt on three occasions in the left temporal bone by G. C.

## Eyes.

- f* Kali b. (Pain over right eye.) Chelid.  
*g* Calc. Chel. Cic. Lyc. Kali. Merc. Phos. Puls. Sep. Sil.
14. Stye on left upper lid. (*M. P.*, *gtt. vi. 2<sup>x</sup>*.)  
 15. In five minutes slight pain over left eye. (*M. P.*, *gtt. xxx. of sat. sol.*)  
 16. In one hour pain over left eye; cedema of lower lids is worse than usual. (*M. P.*, *gtt. lx. of sat. sol.*)  
 17. Left eyelids inflamed and agglutinated. (*R. II.*)

18. Raw left eye, (which was slightly inflamed before the experiment), there is<sup>h</sup> lachrymation, then<sup>h</sup> agglutination of lids, when they are forcibly parted, ichorous pus flows forth: marked<sup>h</sup> photophobia; seven days afterwards there is an<sup>h</sup> ulcer on her left cheek, apparently produced by acrid discharge from the eye. (*C. V.*)

*h* Lyc. Phos.

*i* Ars. Bell. Calc. Con. Dig. Euphr. Graph. Hep. Ign. Merc. N<sup>x</sup>. v. (Hep. and Phos. artif. light.) Puls. Rh<sup>us</sup>. Sep. Sil. Sulph.  
*j* Ars. Hydras. Kal. b.

REMARKS.—It cannot be doubted that this remedy will be found to exert a specific influence over the structures in the neighbourhood of the orbit. Nitrate of Uranium might be employed in those cases of Epithelioma and Lupus Exedens, which commence in the canthus, then invade and destroy the nose and cheek.

## Nose.

- k* Bell. N<sup>x</sup>. v. Senec. Sticta.  
*l* Act.
19. Dry coryza; left nostril stuffed; itching in nose. (*M. P.*, *gtt. vi. 2<sup>x</sup> dil.*)  
 20. Nostrils sore. (*M. P.*, *gtt. xxiv. of 2<sup>x</sup> dil., two days before.*)

21. Next day small<sup>h</sup> scab in right nostril, with soreness.  
 22. Purulent discharge from left nostril. (*C. V.*)

*m* Mer. c.

*n* Bap. Con. Hydrast. Ars-iod. Kal. b. Lach. Lyc. Mer. c. Nit. ac. Petr. Phyt. Sang. Sulph.

REMARKS.—Uranium seems to exert some specific influence over the nose, it has proved curative in scabbing of the inner nostril, *vide* Therapeutic use, Case 22nd, p. 27.

## Face.

- o* Hep. Natr. m. Nit. ac. Sulph.
23. Acne on forehead. (*M. P.*, *gtt. xv. 2<sup>x</sup>*.)

24. Ulcerated left cheek, after purulent discharge from left eye. (*C. V.*)

## Mouth.

25. Small painless ulcer on buccal aspect of left cheek, opposite left anterior, upper molar, more tender in evening, lasting a week. (*M. P.*, *gtt. xii. 2<sup>x</sup>*.)

26. Copious salivation. (*C. V.*, *gtt. i. 1<sup>x</sup>. left hind thigh.*)  
 27. Red spots on hard palate, which feels raw. (*F. P.*, *gtt. cx. 2<sup>x</sup>*.)

*p* Esc. h. Bap. Bell. Canth. Helon. Iod. Iris. Merc. N<sup>x</sup>. v. Phos. Podoph. Plumb. Puls. Rh<sup>us</sup>.

## Throat.

28. Cutting feeling at back of fauces. (*M. P.*, *gtt. xvi. 2<sup>x</sup>*.)

## Nausea, Vomiting, &amp;c.

- q* Caul. Cornus. Puls.  
*r* Ars. Ipec. Kali. b. Ver. a.
29. Vomiting, with much nausea during catamenia,<sup>a</sup> no appetite. (*F. P.*, *gtt. x. sat. sol. 4 days before.*)  
 30. Intermittent vomiting with great thirst for 4 days, then death (*gtt. i. 1<sup>x</sup>. hind leg. C. XI.*)

31. Occasional vomiting. (*K. XII.*, *gtt. i. 1<sup>x</sup>, fore leg.*)  
 32. Vomits white fluid. (*K. XIII.*, *gtt. v. 2<sup>x</sup>, hind leg.*)

*s* Iod.

*t* Cup. ac. Raph.

REMARKS.—Vomiting would appear to be a markedly specific action; it occurred on four occasions, in three animals, even when injected into the cellular tissue of the hind leg.

It is to be noted that vomiting did not appear, in any case, in the animals whose alimentary canals were found, after death, to be the seat of ulceration.



## Stomach and after Meals.

- <sup>u</sup> Gran. Phos. Tart. e.  
Ver. a.
- <sup>v</sup> Act. (?) Corn. (?)  
Helon. (?) Hydras.  
(?) Sang. (?) (before  
Cat. Bell.)
- <sup>u</sup> Ars. Calc. Kreas.  
Nitr. Nx. v. Phos.  
Spig. Tart. e. Zinc. o.
- <sup>x</sup> Acon. Ars. Bry.  
Colc. Cham. Chin.  
Merc. Nat. m. Sulph.
- 33.** Excessive flatulency in stomach and bowels. (*M. P.*, gtt. xix. 2<sup>x</sup>. day before.)
- 34.** Tasteless eructations.<sup>u</sup> (*M. P.*, gtt. xx. sat. sol.)
- 35.** Eructations. (*M. P.*, 2 hours after. gtt. lx. sat. sol.)
- 36.** Loss of appetite during catamenia.<sup>v</sup> (*F. P.*, gtt. x. sat. sol. 4 days before.)
- 37.** Very thirsty, with dislike for meat,<sup>u</sup> &c. (*K. gtt. xii. φ*, left fore leg.)
- 38.** Great thirst.<sup>x</sup> (*gtt. cxi. 1<sup>x</sup>. left hind thigh.*)
- 39.** For 2 days intermittent attacks of
- pain, radiating from the left side of the ensiform cartilage<sup>7</sup>; aggravated by fasting; slight constipation. (*G. C.*, gtt. v. 6<sup>x</sup>.)
- 40.** Pain as above, with occasional twisting, gnawing feeling rather lower down, relieved by food. (*G. C.*, gtt. v. 6<sup>x</sup>.)
- 41.** Dyspeptic feelings  $\frac{1}{4}$  hour before dinner with gnawing-sinking at cardiac end of stomach; but without hunger or faintness. (*G. C.*, gtt. v. 2<sup>x</sup>.)
- 42.** Putrid eructations<sup>z</sup> at 11 and 3. (*G. C.*, gtt. v. 2<sup>x</sup>.)
- <sup>y</sup> Arg. n.
- <sup>z</sup> Arn. Bel. Bis. Coc.  
Mer. Sang. Sep.

REMARKS.—Ulceration of the Stomach has been produced in three out of ten Rabbits; this seems to be a specific effect, for it appeared in those cases where the drug was introduced under the skin of a distant part of the body, e. g., the leg.

The ulceration was near the pylorus; and, in the non-ulcerated rabbits, there was some deviation from health in the lining membrane of the pyloric extremity of the viscus. For Post-mortem condition and Pathology of stomach, vide "Experiments on the Lower Animals," pp. 4—8.

## Abdomen.

- 43.** Woke at 2 a.m., with an urgent desire to evacuate bladder and rectum; borborvgmi; small, soft stool. (*M. P.*, gtt. xi. 2<sup>x</sup>.)
- 44.** Constipation. (*M. P.*, gtt. vi. 2<sup>x</sup>.)
- 45.** Excessive flatulency in stomach and bowels. (*M. P.*, gtt. xix. 2<sup>x</sup>. the day before.)
- 46.** Sharp colic and tenesmus, raw feeling in rectum. (*M. P.*,  $\frac{1}{4}$  oz. dissolved and injected into rectum.)
- 47.** Tight feeling round waist,<sup>a</sup> pain all over abdomen. (*F. P.*, gtt. cx. 2<sup>x</sup>.)
- <sup>a</sup> Con. Lye.
- Ascites. Vide Morbid Appearances in animals.
- Ulceration of Duodenum.—Idem.  
Enteritis.—Idem.

REMARKS.—This drug will probably prove a valuable ally in our treatment of intractable Ascites, and in peritonitis with effusion. If Curling's observation be a true one, we should expect that this salt, and the Bichromate of Potassium, would have the power of averting the fatal tendency of extensive, cutaneous burn, from their evident specific power in producing ulceration of the duodenum, combined with marked general prostration.

## Bladder and Urine.

- <sup>b</sup> Cann. Canth. Caps.  
Colch. Erig. Galap.  
Ham. Hedeo. Lach.  
Merc. Staph. Thuj.
- <sup>c</sup> Ammoniac.
- <sup>d</sup> Ammoniac. Chim.  
Ham. Rat. Sraph.  
Zinc.
- <sup>e</sup> Arg. Bar. Caust.  
Erig. Gels. Lye.  
Merc. Pod.
- 48.** Burning in the urethra;<sup>b</sup> with very acid urine.<sup>c</sup> (*M. P.*, gtt. xix. 1<sup>x</sup>. day before.)
- 49.** Desire to urinate again immediately after voiding bladder.<sup>d</sup> (*M. P.*, gtt. xx. 2<sup>x</sup>.)
- 50.** Chlorides increased. (*M. P.*, gtt. v. 2<sup>x</sup>. sat. sol. day before.) All other constituents remain unchanged.
- 51.** Copious chlorides. (*F. P.*, gtt. x. sat. sol. preceding day.)
- 52.** Micturition increased in frequency,<sup>e</sup> (12 times in 24 hours), preceded by pain over left eye; contracted feeling in throat; eructations. (*M. P.*, gtt. lx. sat. sol.)
- 53.** Sore feeling in pubic region.<sup>f</sup> (*gtt. lx. sat. sol.*) Average daily quantity of urine increased by 3 oz.
- 54.** Urinary tenesmus.<sup>g</sup> (*Dr. Lowder's case, after giving 3<sup>x</sup> t. d. 6 weeks.*)
- 55.** Urinary tenesmus. (*Dr. L's case, after giving 2<sup>x</sup> q. d. 11 days.*)
- <sup>f</sup> Cant. Chim. Puls.
- <sup>g</sup> Cant. Caps. Chim.  
Colch. Lach. Merc.  
Nx. v. Mur. ac. Puls.  
Sars. Sil. Vio. t.

REMARKS.—As a result of the preceding experiments, glycosuria is quite put out of court, as a condition theoretically calling for the use of Nitrate of Uranium: but another disorder more immediately connected with the urinary apparatus, will at once suggest itself to the careful student of the preceding pages,—I refer to those morbid states comprehensively classed under the title of Bright's Disease.

In the earlier stages of the small, gouty or contracting kidney, more especially where severe gastric disturbance complicates the case, the use of Uranium would be strongly indicated.

Some of the cases reported as "Diabetes," in our literature, are evidently of this character—mark the duration of the symptoms, the nocturnal diuresis, the lumbar pains, &c.

It is also indicated for the irritable condition of the renal plexus of the sympathetic, inducing Diuresis.



## Cough and Chest.

56. Pain at lower angle of left scapula, aggravated by taking a deep inspiration. (*M. P.*, *gtt. xl. 2<sup>x</sup>*.)

57. Double hydro-thorax.—(*Vide Morbid Appearances.*)

58. Congestion of lung.—(*Vide Idem.*)

59. Cough with purulent discharge<sup>b</sup> from (left) nostril; loss of appetite and great prostration; lung infiltrated with grey tubercle; no vomica.—*Vide Morbid Appearances.* (*C. V.*)

<sup>a</sup> Ars-iod. Bap. Con.  
Hydrast. Kali b.  
Lach. Lyc. Merc.  
Petr. Phyt. Sang.  
Sulph.

REMARKS.—This drug does not appear to possess a specific relation to any part of the respiratory apparatus; with the exception of the pleural effusion, R. X., the chest symptoms were apparently fortuitous.

## Back, Kidneys, &amp;c.

<sup>i</sup> Act. Caust. Led.  
Ol. an. Petr. Puls.  
Sep. Silic. Sulph.  
Thu.

60. Stiffness in loins.<sup>1</sup> (*M. P.*, *gtt. x. 2<sup>x</sup>*.)

61. Increased frequency of micturition,<sup>1</sup> twelve times in 24 hours. (*M. P.*, *gtt. lx. sat. sol.*)

62. Pressure in loins caused a rabbit to fall on left side as if moribund, then to defæcate. (*R. II.*, *gtt. v. 1<sup>x</sup>*.)

<sup>j</sup> Act. Apoc. c. Arg.  
Bar. Caust. Erig.  
Eryng. Eupat. Hy-  
drast. Lyc. Merc.  
Pod. Sang.

REMARKS.—Uranium, like many of the metals, exercises a distinct influence over the kidneys; and though it has not yet induced pathological changes closely resembling those of Bright's Disease, as lead, arsenic and mercury have done; yet the general complexion of the drug points clearly in the direction of chronic renal degeneration.

## Upper Extremities.

63. Pain at lower angle of left scapula, aggravated by taking a deep inspiration. (*M. P.*, *gtt. xl. 2<sup>x</sup>*.)

64. White vesicles on hands and legs, red areolæ; they burn and itch. (*F. P.*, *gtt. lx. 2<sup>x</sup>*.)

REMARKS.—No special relationship between this drug and the thoracic limbs has yet been established.

## Lower Extremities.

65. A few small, white vesicles, with red areolæ on legs, which burn and itch. (*F. P.*, *gtt. lx. 2<sup>x</sup>*.)

## Skin and Ulcers.

66. Small white, vesicles with red areolæ on hands and legs; they burn and itch. (*F. P.*, *gtt. lx. 2<sup>x</sup>*.)

67. Discharge from inflamed eye causes ulceration of cheek. (*C. V.* *gtt. i. sat. sol. day before in left thigh.*)

REMARKS.—There is no evidence to show that Uranium acts pointedly in the cutaneous investment; there is proof of a specific action in the cellular tissue. Some forms of Lupus Exedens of face, commencing in the eye or nose, will probably call for this remedy.

## General Debility and Languor.

<sup>k</sup> Act. Con. Eup. pe.  
Glon. Ign. Nat. nit.  
Nx. v. Petr. Rum.  
<sup>l</sup> Chin. Lept. Phos. a.  
Zinc.

68. Head heavy on waking, general languor, with aching at occipital protuberance.<sup>k</sup> (*M. P.*, *gtt. vi. of 2<sup>x</sup> dil.*)

69. Languor.<sup>1</sup> (*M. P.*, *gtt. xviii. of 2<sup>x</sup> dil. day before.*)

70. Extreme<sup>1</sup> languor on rising from bed,

with fishy odour of urine. (*M. P.*, *gtt. xx. of 2<sup>x</sup> dil. the day before.*)

71. "Great prostration and drowsiness during the catamenia"<sup>n</sup> (*F. P.*, *gtt. x. sat. sol. four days before cat.*)

72. Debility and cold feeling, with vertigo.<sup>o</sup> (*F. P.*, *gtt. cx. of 2<sup>x</sup> dil.*)

<sup>m</sup> Calc. Ign. Nx. v.  
<sup>n</sup> Bell.  
[before Cat. Puls.]  
<sup>o</sup> Act. Alet. Gels.  
Ver. a.

REMARKS.—The debility caused by Uranium, like that induced by the other metals, is very marked. On referring to the experiments on animals, it will be seen that the small amount existing in five drops of the 1<sup>x</sup> dil. injected under the skin, was enough to cause death in a rabbit; two drops, of the same attenuation, were found to be sufficient to suspend life in a full-sized cat. Uranium, like Chrome, Silver, Iron, Arsenic, &c., will probably fall into its place as a useful “tonic,” (so called,) and prove a valuable ally in combating certain forms of prostration, especially, perhaps, those resulting from severe organic lesion.

#### Fever, &c.

- |   |  |
|---|--|
| <p>73. Shivering alternately with heat at night, and great restlessness. (<i>G. C., gtt. v. 2<sup>x</sup>.</i>)</p> | <p>74. Prostration, somnolence, and shivering during the day; restless at night at the period. (<i>F. P., gtt. x. sat. sol. four days before.</i>)</p> |
|---|--|

REMARKS.—The fever symptoms are not marked; the temperature of K. xii., under the influence of 2<sup>x</sup>, rose steadily in two months from 99.6° to 102° F.

#### Mental Symptoms.

- |  |  |   |
|--|--|---|
| <p><i>p</i> Acon. Aur. Calc.<br/>Cham. Coff. Helo.<br/>Iris. Nx. v. Puls.<br/>Sulph. Ver. a.</p> | <p>75. Ill temper, he is cross with everybody.<sup>p</sup> (<i>M. P., gtt. x. of 2<sup>x</sup> dil.</i>)</p> | <p>77. General malaise, he feels cross<sup>p</sup> and disagreeable. (<i>G. C., gtt. v. 2<sup>x</sup>.</i>)</p> |
|  | <p>76. Ill humour.<sup>p</sup> (<i>M. P., gtt. xv. of 2<sup>x</sup> dil.</i>)</p>                            |   |

REMARKS.—The mental symptoms of Uranium are evidently those only, that are so well known to accompany diseases of the abdominal cavity.

#### General Nutrition.

Was modified more or less in all the animals under treatment, in some it appeared to be entirely arrested.

### THE MODE OF PREPARATION: DOSE, ANALOGUES AND ANTIDOTE.

THE MODE OF PREPARATION.—The *Nitrate* is extremely soluble in water; it has been usually prepared in this country and in America as a trituration; but the best preparation is the recent aqueous solution, prepared with carefully distilled water, *by artificial light*, and then preserved in stoppered amber phials.

The salt administered in the preceding experiments was manufactured by Medlock and Bailey, of Wolverhampton, by treating the Sesquioxide with French Nitric Acid.

THE DOSE.—The lower potencies, 1x, 2x and 3x, have been those chiefly employed; but it must be remembered that this is an extremely acrid drug, two drops of 1x being sufficient to kill a full-grown cat [Exp. XIII.]: so that the higher potencies might be used with advantage.

The ANALOGUES of this drug are *Mercurius corrosivus*, *Arsenicum*, *Kali bichromicum*, *Plumbum*, *Phosphorus* and *Argentum*.

Its ANTIDOTE is unknown.



## THE THERAPEUTIC HISTORY, ACTION, AND CASES OF CURE.

In giving the following cases it is not intended that they should be looked upon as constituting the whole range of morbid conditions in which this medicine is likely to prove useful: with the exception of Dr. Drysdale and myself, the drug has only been employed in disorders involving the urinary apparatus. The compiler has quoted the cases in the words of the various contributors, without change.

Dr. Hale says, at p. 274 of the *North American Journal of Homœopathy*, Vol. X, 1861-2, "The attention of the homœopathic profession was first attracted to this new remedy by a communication from F. S. Bradford, M.D., and is to be found on page 502 of the *North American J. of Hy.*, Vol. VIII.

"The results of my own experience satisfy me that this remedy will prove one of the most valuable, in the treatment of the different forms of diabetes and diuresis, of all the medicines for those maladies.

"The following is the communication of Dr. Bradford:—'It is not the object of this paper to discuss the treatment of diabetes, farther than to propose a new remedy, to the trial of which I was led by a statement contained in the January number of the *British and Foreign Medico-chirurgical Review* for 1857.\* In Review III, page 84, it is stated that the gradual poisoning of dogs with small doses of the Nitrate of Uranium invariably caused the urine of the animals thus poisoned to become sugary. It occurred to me that this Nitrate of Uranium might prove a valuable homœopathic remedy in the treatment of diabetes in the human subject. Accordingly I had it prepared in trituration, from the first to the third; and although I have had as yet but few opportunities of administering it in cases of diabetes mellitus, I feel warranted, from its satisfactory effect in those few cases, in recommending those who have patients suffering from this disease, to make a trial of this remedy. Doses of two to three grains of the third trituration, administered morning and night, will in a short time reduce the quantity of urine passed to nearly a normal standard, and after a continued use the pro-

portion of sugar is materially lessened. I have also employed it with the greatest success in cases of acute and chronic diuresis in children and grown people. It is peculiarly successful when the urine, from time to time, assumes an acrid, irritating nature. From the experience which I have thus far had with the Nitrate of Uranium, I am fully persuaded that it merits a careful and scientific proving, by those who feel inclined to test the remedy, and such a proving will, without doubt, be gratefully welcomed by the profession at large.'

"Dr. Bradford is deserving of credit for thus seizing upon the pathogenetic fact developed by Uranium poisoning, and for testing and proving the value of the homœopathic law, by submitting it to the ordeal of clinical experiment. It is thus that an acute mind may seize upon a single symptom of a new and unproven remedy, and from it deduce valuable therapeutic results.

"The Nitrate of Uranium employed in the following cases, was procured through Halsey and King, of the Chicago Pharmacy, and was prepared, as they informed me, by a talented and scientific German chemist."

CASE 1st.—The patient was an old gentleman, aged about 65. I had treated him occasionally for three years for a form of diabetes, which I had every reason to believe was a real case of glycosuria; although, owing to a want of the necessary facilities for a correct examination of the urine, I could not say positively whether sugar appeared habitually in the discharges. (Let me here add, that it is utterly impossible for a country practitioner—by this term I mean a physician in our towns and villages—to get the time to make those analyses of morbid discharges, so necessary to a perfectly correct diagnosis of disease. Such examinations would necessarily involve him in an expense for the procurement of apparatus, which could not well be borne. In these cases of diabetes which I shall report, although I may have been satisfied from my own tests of the correctness of my diagnosis, such tests might not stand the tests of severe analytical chemistry.)

The patient was of corpulent habit, not addicted to the use of ardent spirits, and a temperate eater. The disease has been alternately relieved and aggravated during the six years of its existence. Under my treatment he had been relieved at times by *Cantharides*, *Cannabis*, *Tereb.*, *Merc. sol.*, *Phos. ac.*, and *Arsenicum*. His symptoms, at the time of the trial of the Nitrate of Uranium, were much the same as during the last few years, only much aggravated in every respect, and were as follows:—Constantly increasing debility and emaciation; a dropsical condition of the legs; great pain and weariness in the lower extremities, accompanied by a distressing sensation of crawling or formication under the skin, as of thousands of worms. (This sensation I have often noticed as preceding or accompanying the access of dropsy of the legs or abdomen.) Clammy state of the mouth and tongue; the tongue coated with white fur; at the same time a sensation of dryness of the mouth and fauces, with excessive and uncontrollable thirst.

\* This much talked-of statement is made by no less a person than Claude Bernard. The quotation is to this effect:—"The celebrated Indian poison *Curare*, and apoplexy induced by a severe blow on the skull, have been shown by Bernard to produce saccharine urine; moreover, local irritation of the liver may augment the glycogenic function. Harley injected irritating substances, such as a dilute solution of ammonia or ether, into a branch of the portal vein, and after some time found sugar in the urine. Hence it is not impossible that abnormal matters may be sometimes absorbed from the intestines by the mesenteric veins, and produce a similar effect; we may thus probably explain the fact that *Lecomte always found sugar in the urine of dogs slowly poisoned by small doses of Nitrate of Uranium*."—Review III, on Glycogenesis, *B. & F. Med. Chir. R.*, p. 44, Vol. XIX, Jan. to Ap., 1857. *Lec. de Phys. exp. à la Med. au Coll. de France*, Paris, '55. *Sur le mech. de la form. de sucre dans le foie*, Bernard, Paris, '55. Pavy. *Prize Essay*, *Harveian Soc.*, 1856. Unpub. Dr. Bryden.—[E. T. B.]



Appetite variable—at times wanting, at times excessive. Dyspeptic symptoms prominent; such as sour eructations, burning and cramps in the stomach, and sensation of extreme faintness at the pit of the stomach. Bowels constipated; feces pale, odourless, and dry. Almost constant desire to urinate, voiding large quantities at every emission: he states that he has voided as much as sixteen pints in one day and night. If he tries to retain the urine, severe pain in the bladder comes, and, he says, a sweetish taste. His perspiration and breath has the same sickly, sweet odour. Skin dry and harsh, most of the time, although he perspires when sleeping or on unusual exercise. Pulse 90, small.

He was given *Merc. sol.* 2, and *Ara. alb.* 3, each thrice a day. These remedies had alleviated similar symptoms a few months before, but did not seem at this time to be of any benefit, except to diminish somewhat the extreme thirst.

After waiting one day, during which he had no medicine, he was given powders of *Nitrate of Uranium*, 1st dec., one grain each, to be taken three times a day. The effect of the remedy was prompt and decisive. The first night he had only to get up twelve times instead of twenty, as usual, and the urine was much less in quantity. The next day the urgency to void urine was diminished, and the next night he had to urinate but six times. Under its continued use all the symptoms became much ameliorated, until he informed me that the amount of urine voided was not much above normal, and his strength and health were much improved. He took the remedy about three weeks, decreasing the dose at the rate of one powder a day, during the time, so that the last week he took only one daily. Under the use of *Phos. ac.* and *Helonin* 2 his health improved for several months, when he had another attack of a similar nature, which, however, gave way under the use of the same remedy for a week. Since that time he has had occasional attacks, more or less severe, which are always relieved by the *Uranium*. At his advanced age, it is to be doubted whether a cure can be effected; but the marked beneficial effects of this remedy demonstrate its great utility as a palliative agent in such cases. I have tried very many medicines in similar cases, but have never met with one which manifested such happy effects.

CASE 2nd, was a son of the above, a strong and apparently healthy man of about 40. He first noticed a frequent and profuse urination about six months previously. This trouble gradually increased; about three months ago he began to be troubled with nocturnal urging to urinate, obliging him to get up several times after retiring. His present symptoms are: A growing debility; a good deal of weakness in the lower extremities and back; considerable pain in the region of the kidneys; after a day's work, the legs ache so that he cannot get to sleep until after midnight. Mouth dry; saliva tenacious; tongue coated white; good appetite, but his food causes much distress in the stomach. A constant sensation of faintness in the region of the stomach, even after a full meal; bowels constipated; urine profuse, frequent, accompanied by burning and scalding; milky at times, at other times of a straw colour, and fetid; thinks he voids nearly ten pints in twenty-four hours. He is dispirited, discouraged; has lost his usual ambition for labour, and is inclined to be morose.

For a week he took *Canth.* 3 and *Merc. sol.* 3, with no particular benefit, except to somewhat lessen the *ardor urinae*. I then put ten grains of *Nitrate of Uranium* in half an ounce of distilled water, and ordered him to take ten drops four times a day.

The second night after commencing the remedy he was obliged to get up to urinate but once, and during the day the urine was much less in quantity. Improvement progressed steadily for a week, at which time the secretion had become nearly normal, and his general health was much improved. For the debility and some genital weakness I gave *Phos. ac.* 1, six drops three times a day, and six pellets of *Nux* 3 at night, and continued the *Uranium* twice a day. At the expiration of three weeks he reported himself well—as well as he had been for many years.

Next to the *Nitrate of Uranium*, *Phosphoric acid* is the most important remedy in cases of diabetes. Not so much because of any specific relation which it bears to the essential nature and causes of the malady, but for its renovating and recuperative powers, in restoring nervous energy to the enfeebled organism. It is eminently the remedy, when, from loss of fluids, the solids of the body become wasted and nervous prostration supervenes. In such cases it must, however, be given in appreciable doses, because, first, It is given for conditions which simulate its secondary effects; and, second, Because it is not so much for its dynamic, as its nutritive powers, in restoring the lost phosphorus, which has escaped from the system.

CASE 3rd.—A somewhat intemperate man, about 45 years of age,

a cooper by trade, had been afflicted with symptoms of diabetes for several months. He complained of increasing debility; sweats easily and during sleep; constant pain in the lumbar region; soreness in the region of the kidneys; severe aching, drawing, weary pains in the legs in the after part of the day; they are so weak and heavy that he can hardly walk in the evening. (This distressing aching and weakness of the lower limbs seems to be decidedly pathognomonic of diabetes. It has been present in every case which has come under my observation.) Urination profuse, and sometimes painful; frequent every hour or two; sometimes pale, often milky, with strong ammoniacal odour. His sleep was broken by frequent calls to urinate. He states that he is almost completely impotent, and that the sexual power, which was strong before the diabetic symptoms appeared, is constantly decreasing. A cold perspiration collects on the penis and scrotum, both of which are relaxed and cold. He feels feverish in the afternoon; has great thirst; canine hunger from a gnawing and faintness in the stomach; abdomen feels bloated; and he is constipated.

Some of the symptoms were relieved by the use of *Cannabis*, *Coladum*, and *Merc. sol.*, but the diabetes and the more prominent symptoms remained the same. He was then put upon *Nitrate of Uranium*, 2nd decimal trituration, three times a day. Improvement commenced immediately, and continued until the urine became nearly normal in quantity and the symptoms in general were much ameliorated. One dose of the remedy every evening was ordered, and he was given *Phos. ac.*, 1st dec. dil., ten drops every six hours. Under its use the general and local debility were in time removed.

CASE 4th.—A delicate nervous female, subject to attacks of neuralgia and hysteria, was much troubled with sudden attacks of diuresis, accompanied by much prostration, followed in a day or two by an opposite state marked by some fever, much thirst, dryness of the mouth, headache, and scanty, high-coloured urine. This was undoubtedly a case of *diabetes insipidus* (might it not be called *nervous diabetes*?). I had treated her with *Digitalis*, *Pulsatilla*, *Gelsemium*, *Ignatia*, and *Belladonna*, all of which are homœopathically indicated, but failed to afford more than palliative relief; they did not prevent the reactive symptoms from appearing. This patient called me in one day, and wished a prescription for one of her attacks, which she knew was about to set in from certain premonitory symptoms. Being desirous of testing the *Nitrate of Uranium* in cases differing from true diabetes, I gave her six powders of the 2nd, one to be taken every four hours. The diuresis was much less than was anticipated, and was not followed by the usual feverish reaction.

By this it would seem that the remedy was homœopathic not only to glycosuria, but to other forms of diabetes. It may prove useful in the azoturia of Willis, characterized by an excess of urea, although *Colchicum*, *Verat. virid.*, *Digitalis*, and perhaps *Gelsemium*, are more homœopathic. In the *amureous diuresis* or anazoturia of Willis, it will undoubtedly prove valuable. In *albuminous diuresis* it may prove of some benefit, in connection with *Canth.*, *Digit.*, or *Merc. corr.* It may prove useful in *chyloserous urine*—a curious and rare affection, of which I have seen one case, and cured it with *Phosphoric acid* 1, in a few weeks, after a useless allopathic treatment for months."

It is greatly to be regretted that a man of Dr. Hale's well-known ability and accuracy should not have taken more care in the present instances to establish an exact diagnosis. If these four cases be carefully analysed, No. 4 must be dismissed from the question of diabetes altogether, being nothing more than hysterical diuresis; Nos. 2 and 3 resemble morbus Brightii far more than glycosuria; and even in No. 1 it appears probable that albuminuria was at least co-existent.

Dr. Lowder, of Ryde, has kindly furnished me with the following interesting and highly satisfactory case:—

CASE 5th.—*Diabetes*.—Mrs. C., sister of the late Sir Henry Halford, consulted me in Jan. 1860. Her antecedents were briefly as follows: Had passed through great domestic trials of annoyance for years; had



uterine disease a few years ago, and was under Mr. Stone's care, and subsequently under Dr. Protheroe Smith, who pronounced her disease scirrhus of uterus, and treated her with caustics, and pronounced her cure as one of the most satisfactory he had ever had. Soon afterwards, however, eczema appeared upon the pudendum and anus, involving the rectum and vagina with most distressing itching. A variety of unguents and lotions were fruitlessly employed, and she had abandoned as hopeless all treatment till my aid was sought after four years' suffering. I found, as gastric complications, very constant thirst, with tongue reddish at edges; no appetite for solids; bowels obstinately confined without an occasional rhubarb pill; she had wasted much, from being somewhat corpulent, and her sleep was gone; she had incipient cataracts in both the eyes.

My attention was mainly directed towards alleviating the eczema and the gastric symptoms; and *Arsenic* in different dilutions seemed to do most for her. As she only resided near the island during the winter months I only saw her interruptedly, but her general strength greatly improved, and the eruption became less annoying, but was never cured.

Early in November, 1863, she wrote to me, stating that an old medical friend had examined her urine, and found it laden with sugar. I sent her some *Uranium* 3x, trit., to be taken 3 times a day, till I had an opportunity of seeing her on her return to my vicinity, which I was enabled to do upon Dec. 1st. She then told me that the new medicine had agreed very well with her, the quantity had considerably lessened, and her allopathic friend, who again after three weeks had tested the urine, said the proportion of sugar was greatly diminished. At my request she kept an account of the measured quantities during the last ten days, and it varied between 3 to 5 or 6 pints in 24 hours. Her thirst was much less; had sense of craving hunger at times, but cannot eat much food. The specimen I examined was tasteless, with faint aromatic odour, s. g. 1032, depositing much mucous, flocculent matter. On application of Moore's test, when heated it assumed deep bistre colour. The *Uranium* was continued.

Dec. 18th.—Felt much better; thirst nearly gone, and tongue more natural; urine diminished in quantity, its s. g. 1023; colour less deep on boiling. Jan. 13th, 1864.—The specimen sent was still better; but as she complained now of urinary tenesmus I omitted the *Uranium*, thinking it might be a pathogenetic effect. Feb. 3rd.—Recommenced the *Uranium* 3x, trit. 15th.—Urine somewhat increasing in quantity, as it now averages 4 pints; the previous week  $3\frac{1}{2}$  pints; sp. grav. 1035, and colour on boiling much deeper again. *Nit. Uran.* 3, 4 *ter die vice ter*. March 9th.—Steady improvement since the last report; sp. g. 1026;  $3\frac{1}{2}$  pints; no thirst. *Nitrate Uranium* 2x, *vice* 3x, 4 *ter die*. 20th.—She has little complaint to make; her obstinate bowels act much better; urinary tenesmus again. *Nit. Uran.* 2x, *ter die*. April 1st.—Still improves in general health. The urinary tenesmus I had reason to believe was connected with extension of eczematous eruption into the urethra, as it certainly had into the rectum. Cont. *Nit. Uran.* 2x, *ter die*. May 2nd.—Urine, 3 pints; s. g. 1030. Expresses herself as unusually well in her feelings. June 27th.—Has taken the *Uranium* twice daily since last report, and the sample sent me sp. g. 1016, and very much less deep on boiling with potass. Cont. med. July 7th.—An excellent report of herself; gains flesh considerably; sleeps comfortably. Cont. 22nd.—Sample sent, sp. g. 1025. Her reports fortnightly were much the same, and need not be detailed, and I did not see her till Oct. 28, when I found her as comfortable as could be expected, with urine average quantity, 3 pints, sp. g. 1022, and very trifling thirst. She had steadily taken the *Uranium* 2x. Dec. 29.—The sp. g. was 1020-25, and so it fluctuated with average quantity about 3 pints, till my last visit to her, April 24th, 1865. 1866.—She wrote about twice a month till she died of some sudden attack, which was attributed to the heart, about the end of August. The last specimen she sent me, on Aug. 13, was 1018, and the colour on boiling with potass showed scarcely any sugar.

The marked action of the *Uranium* in this unpromising case was gratifying in the extreme. Under it the distressing thirst of very long continuance abated, the tongue lost its red, angry hue, the obstinate bowels resumed their wonted action naturally, and her sleep, which for years had been almost lost, was much improved, and even her tormenting eruption became much more endurable. She gained flesh, and enjoyed a much greater measure of health and happiness than she had ever dared to expect.

CASES 6th, 7th, 8th.—Dr. Eugene Curie, of Paris, has published three cases in the *Bull. de la Soc. Med. Hom. de France*, corroborating the testimony of others as to the clinical value of this drug in diabetes. One case was cured; and in the other two the quantity of sugar in the urine was reduced to one-half.

CASES 9th, 10th.—Dr. Dudgeon reports that his whole experience with this drug amounted to giving it in two cases, where, singularly, a man and his wife both suffered from diabetes. It was of no marked benefit. They afterwards improved very much at Carlsbad.

CASES 11th, 12th, 13th.—Mr. Millin, of Worcester, reports three cases of glycosuria treated unsuccessfully with the Nitrate.

At page 270 of Vol. I. of Hering's *American Journal of Homœopathic Materia Medica*, two cases of cure of diabetes by *Nitrate of Uranium* are reported by Dr. Jousset.

CASE 14th.—J. M. D., æt. 70. Since three years has had to urinate very frequently, and loses flesh; he drinks a great deal to assuage his constant thirst; urine tested and found to contain sugar; patient is allowed to eat what he likes and to drink his Vichy water. Takes *Uran. Nit.* in low dilutions with benefit, but the sugar still remains; then takes 12th dilution, and the sugar disappears entirely. Four months afterwards no return.

CASE 15th.—D., æt. 52. Intense thirst; has to get up several times in night to drink; good appetite, but loses strength; passes large quantities of urine, of specific gravity 1844, and containing 85 grs. of glycose per litre. Took *Nitrate of Uran.* 6, 11 drops in 8 oz. of water, 2 table-spoonsful a day, and 3 days rest before renewing it. For diet meat and greens, no bread. Rapid improvement; the thirst decreased before he had finished his first medicine; density of urine fell to 1025, but the sugar did not entirely disappear.

Dr. Clotar Müller, in a classical paper,\* first printed in abstract in Vol. I of *Annals of the British Homœopathic Society*, afterwards printed in *extenso* in Vol. XVII of *British Journal of Homœopathy*, says: "Several of our brethren have openly asserted that no drug is at present known which will produce saccharine urine (1859); and in spite of great labour, that which I have found in my searching is still but very little and very indistinct. And yet sugar is an unusually important symptom for us in its relation to the treatment of diabetes mellitus—still more so than, for example, albuminuria in the treatment of Bright's disease; for saccharine urine is a most constant, certain, and important symptom in diabetes, and even, in many cases, the only one besides the increased quantity of the urine, which last can be of little importance to us, from its common occurrence. Trinks has therefore wisely remarked (*H. V. J. Schrift*, II, 194), 'that the specific for diabetes will be that drug which causes, in addition to increased secretion of urine, the excretion of sugar by the kidneys.' The regularity of the pathognomonic symptoms of this disease, moreover, leads us to expect that the drug which causes sugar in the urine will also cure every case, as all diseases of determined and unvarying characters are always removed by one single remedy. It is therefore of the greatest importance for us to find agents which will produce saccharine urine. Unfortunately, I have as yet only been able to find facts with six drugs giving any indication of such a property, or even leading to a suspicion of its existence; they are *Cantharis*, *Chloroform*, *Curare*, *Morphia*, *Uranium Nitricum*, and *Asclepias vincetoxicum*."†

\* "On the Changes which the Urine undergoes in Disease, and on their Value and Application, according to Homœopathic Principles," *Hom. Vierteljahrsschrift*.

† To which might have been added *Arsenic*, *Asparagus*, *Bile of Dipsas* (a serpent), *Castus*, *Causticum*, *Cuprum*, *Ether*, *Ferri sulph.*, *Mercury*, *Nitrum*, *Natrum muriaticum*, *Quinine*, *Tartrate of Antimony*. "Jahr" gives *Carb. veg.*, *Ledum*, *Natrum muriaticum*, *Phosphoric acid*, *Baryta muriatica*, *Magnesia*, *Mephitis*, *Mercury* and *Sulphur*.

E. T. B.

D



Dr. Hamilton, in the discussion which followed a paper on Diabetes by Dr. Neatby (*Annals of British Homœopathic Society*, Vol. III, p. 456), said that he had not observed much benefit from *Nitrate of Uranium*, though *Phosphoric acid* had rendered much service in uncomplicated cases.

During the same discussion, Dr. Yeldham did not even name the *Nitrate*. He had seen benefit from *Arsenic* in diabetes, and still more from *Phosphoric acid* and *Nuxvomica*.\* He treated a well-marked case, with apparently complete success, with gr. v. t. d. of *Hypophosphite of Soda*, 1x trit.

Dr. Bæhr, in his *Science of Therapeutics*, says: "According to P. Frank, the bite of the dipsas causes diabetes, and the connection of serpent-poisons with affections resembling diabetes has frequently been noticed. One of our colleagues was acquainted with a man, 60 years of age, in whom the excessive use of common table-salt developed every symptom of diabetes, which disappeared as soon as he stopped this pernicious habit.

"About four years ago a French physician made the discovery that daily doses of 1.5 centigrammes of the *Muriate (?) of Uranium* caused sugar to appear in the urine. If we had had a fair opportunity for instituting provings, we should have done so at once; but we found it inconvenient to carry out such a purpose.

Cases 16th and 17th.—However, we had a chance to experiment with the drug on two diabetic patients, a boy of 13 years and a farmer of 40 years. Unfortunately, on account of the distance at which these patients resided from our office, and their own want of perseverance, we were unable to make many or perfect observations.

"Both pursued their accustomed mode of living; nevertheless, in the case of the boy, the specific gravity fell from 1042 to 1030, and in the case of the man from 1039 to 1031; the thirst, hunger, and the quantity of the urine likewise diminished very greatly. Dr. Weber made two similar observations on two patients, both of whom died of typhoid (probably uræmic) symptoms. After taking *Uranium*, 2nd trituration, the specific gravity always decreased.

"These results would be trifling, if they did not concern a disease against which our means of treatment have so far proved inefficient; the drug undoubtedly deserves to be subjected to further trials.

"In conclusion, we urge that the waters of Karlsbad and Vichy have constantly shown such favourable results in diabetes, that it is a physician's duty to send every patient, whose circumstances will admit of it, to these springs. These spas being only visited during the fine season, time enough remains during the winter to try other remedial agents in such cases."

Dr. Richard Hughes reports the following cases of diabetes in the *British Journal of Homœopathy*:—

\* The only case of well-defined diabetes, where the presence of sugar was ascertained chemically by two independent observers, in which I have seen a distinct and persistent cure performed, was in a lady of gouty habit, who had recently miscarried; the sugar disappeared under *Calc. carb.* and *Nux vom.*, given for alternate three days, with hot-air bath and diabetic diet.—*Vide Brit. Jour. of Hom.*, Vol. XXVIII, p. 206; 1870.

E. T. B.

CASE 18th.—Mr. G., æt. 30, a stout and ruddy-faced man, consulted me on May 12th, 1864, and, much to my surprise, told me he was suffering from diabetes. I ascertained, on inquiry, that he had been labouring under many of the usual symptoms of the disease for some months, and had been last under the care of Dr. Quain, who had examined the urine, and pronounced it saccharine. He was upon the usual diet, but complained that it did not seem to strengthen him. I soon found him excessively nervous and hypochondriacal, and indisposed to persevere in any course of treatment.

As the urine had been lately tested by so eminent an authority, I did not trouble him to furnish me with a specimen, but desired him to procure a urinometer, and take the specific gravity of what he passed each night and morning. I recommended a persistence in the restricted diet, and prescribed *Nitrate of Uranium* in the 3rd decimal dilution, five drops in water three times a day.

On his first testing, the specific gravity of the urine passed at night was 1040°, of that of the following morning 1042°. The following table will exhibit the results of the morning and evening testing up to June 4, during all of which time the patient continued the same regimen and medicine.

Date.	SPECIFIC GRAVITY.	
	Morning.	Evening.
May 12 .....	—	1040
" 13 .....	1042	1035
" 14 .....	1037	1035
" 15 .....	1035	1040*
" 16 .....	1035	1035
" 17 .....	1035	1033
" 18 .....	1033	1032
" 19 .....	1032	1032
" 20 .....	1032	1035†
" 21 .....	1035	1027
" 22 .....	1030	1035
" 23 .....	1035	1023
" 24 .....	1026	1028
" 25 .....	1030	1028
" 26 .....	1026	1026
" 27 .....	1033	1023
" 28 .....	1025	1018
" 29 .....	1022	1019
" 30 .....	1025	1015
" 31 .....	1025	1025
June 1 .....	1025	1022
" 2 .....	1024	1030
" 3 .....	1025	1030
" 4 .....	1030	—

In spite, however, of these favourable results, the occasional variations being nearly always traceable to transgressions in diet, my patient was not satisfied. He had not lost in weight; indeed, between May 28th and June 4th he had gained half a pound, i.e., from eleven stone five pounds to eleven stone five and a half pounds. But he felt as weak muscularly as ever, he chafed at the rigid diet, and was very desponding about himself. I thought I might now safely try the effect of *Phosphoric acid*, and gave him accordingly five drops of its 1st decimal dilution twice daily, instead of the *Uranium*. His report on the 11th ran thus:—

Date.	SPECIFIC GRAVITY.	
	Morning.	Evening.
June 4 .....	—	1030
" 5 .....	1030	1026
" 6 .....	1025	1022
" 7 .....	1025	1022
" 8 .....	1025	1025
" 9 .....	1031	1030
" 10 .....	1030	1035
" 11 .....	1030	—

He did not feel any better or stronger. This was not satisfactory; I was spoiling my experiment, and the quantity of sugar seemed increasing rather than the reverse. I accordingly returned to the *Nitrate of Uranium*, as before. On the 18th Mr. G. again visited me, stating that he felt no better, and must return to London. He presented, however, the following report:—

\* The result of indulging in bottled stout for dinner.

† Acknowledged to having indulged his craving for bread this day.



Date.	SPECIFIC GRAVITY.	
	Morning.	Evening.
June 11 .....	—	1030
" 12 .....	1032	1032
" 13 .....	1032	1034
" 14 .....	1025	1033
" 15 .....	1027	1029
" 16 .....	1025	1030
" 17 .....	1025	—

This is the last I have seen or heard of my patient. The result of the treatment was encouraging enough to me, though not to him. By the use of a single medicine in moderate doses, and without change of diet, the specific gravity of the morning urine (which is the least variable) had been reduced in five weeks from 1042° to 1025°. I think that had he possessed more hopefulness and perseverance, and had I, perhaps, increased the dose of his medicine, he might have been radically cured.

CASE 19th.—My second case was one of an old gentleman of about 70. He had had a second apoplectic attack, and I was attending him for the subsequent paralysis. He complained more than once to me of the frequent necessity he was under of emptying his bladder, especially at night. I regarded this as evidencing loss of power in the sphincter, as his motions also sometimes escaped involuntarily, and treated it accordingly. Finding, however, that he was growing thin and complaining of thirst and loss of appetite, I made inquiry as to the amount of urine passed, and ascertained it to be considerably above the average. Having procured a specimen for examination, I found the specific gravity 1035°, and on boiling with liquor potassæ, there was unmistakable evidence of the presence of sugar. I now directed a careful diet; no sugar in any form, no spices or puddings; potatoes to be excluded, and bread and green vegetables to be but sparingly used; malt liquor to be left off, and its place to be supplied by Claret and still Hock. I prescribed the *Nitrate of Uranium*, as in the former case, i.e., five drops of the 3rd decimal dilution three times a day. The quantity of urine almost immediately fell to its normal average. When I examined the urine again in a week's time, the specific gravity was only 1027°. The thirst was lessened.

The next week's examination disclosed no change, but a fortnight later the specific gravity was only 1019°, and but few traces of sugar were visible. This was in August and September, 1865. The old gentleman has continued hearty since, though somewhat paralytic. He has long ago resumed his usual diet.

CASE 20th.—Mr. W., set. about 25, consulted me on October 2, 1865. I rarely saw any one to whom the term "walking skeleton" might more justly apply. His history was this:—His father had died of diabetes not very long ago; he himself had enjoyed good health until the latter end of May in this year, when he had an attack of rheumatic fever. During convalescence therefrom, imprudence in diet brought on a sharp attack of bowel complaint, which his medical attendant called enteritis. It was immediately after this that sugar was detected in the urine, though he is confident he had had diabetic symptoms for some time before. He was put upon the usual diet at the beginning of July, and had continued it to the present time, but without improvement.

I found, on inquiry, that he was at this time passing about six pints of urine daily. His thirst was very great. He was very weak, so that he had to come to my house in a chair. His pulse was 120, and feeble; his tongue and the mucous membrane of his mouth generally of a bright glazed red. His spirits, however, were good.

I gave a drop of *Arsenicum* 3, three times a day, and desired him to come again in three days, bringing with him a specimen of his urine.

October 5th. He feels stronger somewhat from the *Arsenicum*. His urine has a specific gravity of 1035°, and contains a large proportion of sugar. To take *Nitrate of Uranium* thrice daily, as in the former cases. I made no change in his diet, except to substitute for the brandy and water he was taking, light wines—Claret, Sauterne, Chablis, still Hock and Moselle, according to his taste—and an occasional glass of dry Sherry.

9th. The urine is now only five pints daily; otherwise the same.

14th. He feels decidedly better, stronger, and less thirsty. The quantity of urine is now only four and a half pints, and the specific gravity has fallen to 1026°. Being very tired of bran bread, introduced Dr. Pavay's almond food to his notice, as an agreeable substitute.

21st. The improvement has continued. The urine is now between three and four pints daily. His pulse has gone down to 93, and he has gained two pounds in weight since the beginning of the treatment. As he was now leaving Brighton, I recommended him to continue the medicine, and write to me from time to time.

November 22nd. He reports that the specific gravity of this morn-

ing is only 1022°. His strength continues to improve, and he wishes to know if he may vary his diet. I told him to try a captain's biscuit occasionally by way of bread, and to continue the medicine.

December 13th. He writes: "I am feeling better, and certainly get stronger every day. I have gained seven and a half pounds since I left Brighton, but I find I sometimes lose a little and then gain again." The specific gravity of the urine, however, was rather higher, varying from 1027° to 1031°.

February 13th. This day Mr. W., from whom I had not heard since the last date, came into my study; he had altered greatly for the better in appearance. In reply to my questions, he told me that his general health was vastly better; he could walk two or three miles without fatigue; his weight, last time he got into the scales (Jan. 29), was nine stone two and a half pounds, i.e., thirteen pounds more than when he began the treatment; his urine was always below three pints in the twenty-four hours. He brought me a specimen passed that morning: it looked much more like healthy urine, but its specific gravity was 1028°, and the potash test still showed the presence of sugar. I now gave him the 2nd instead of the 3rd decimal dilution of the *Uranium*, directing him to take as before five drops thrice daily. He continued the same diet, to which he had become tolerably accustomed.

February 24th. Mr. W. saw me to-day, as he was leaving Brighton. He continued to improve, and his weight continued at nine stone two and a half pounds; his pulse was 86. The specific gravity he found to vary between 1024° and 1028°; one morning it had been as low as 1022°. To go on with the 1st dilution of the *Nitrate of Uranium*, increasing the dose by one drop each week, until it reached ten drops.

I must leave these cases to the judgment of my colleagues; to my thinking, they prove that in the *Nitrate of Uranium* we have the nearest approach yet made to the true homœopathic specific for diabetes. At any rate, it is a most valuable addition to the medical means at our command wherewith to arrest its progress.

CASE 21st.—In the 2nd edition of his *Manual of Pharmacodynamics* (1870), Dr. Hughes says, under the heading "*Uranium*:" "I have had no case of diabetes under my care since the above was written until December in last year. I was then consulted by a tradesman of middle age, with grave general symptoms of the disease: his urine was saccharine, and of sp. gr. 1036. A suitable diet and *Uranium Nitricum* 1 caused immediate improvement, which went on so rapidly that in a fortnight he ceased attendance. This patient continued the medicine and diet for some time longer, and came to see me once more, when I found the sp. gr. of the urine to be only 1025, and he himself feeling quite well.

"I have also lately had an opportunity of seeing Case I. of my paper in the *British Journal of Homœopathy*, who presented so good an example of the effects of this medicine. He has had no diabetic symptoms, and he reports the sp. gr. of the urine never to exceed 1030. He takes an ordinary diet."

CASE 22nd.—*Diabetes Mellitus with intra-nasal pustules*.—For this case I am indebted to J. N. Blake, Esq., of Plymouth, surgeon.

Mr. T., aged 62, in easy circumstances, has twelve living children: June 20th, 1870. Four years ago had a "brain attack," the result, apparently, of too sedulous devotion to marital duty; there was then some fear of paralysis. About this time he had a carbuncle of large size on the abdomen, accompanied by much constitutional disturbance. Five months ago he had an attack of gravel. Had an attack of bronchitis, with slight congestion, five weeks ago. Formerly this patient suffered from hæmorrhoids. The first symptom of the present attack that he observed was impairment of the sexual power. He afterwards noticed that white, "mildew-like" spots appeared on those parts of the dress where urine might have accidentally fallen: so much was this the case, that he was compelled to abandon the use of dark clothes. During the past fifteen months he has had severe thirst; bulimy; frequent desire to micturate, leaving the bed twice in the night; and mental depression, even to suicidal tendency.

He consulted me on the 23rd March, 1869, and I prescribed the *Nitrate of Uranium* 1x. Under this remedy his sp. gr. remained, persistent, at 35.5; the quantity varying only from four-and-a-half to five pints. It was singular that though the diabetes did not appear to be benefited by the *Nitrate*, some troublesome scabs in the nostrils entirely disappeared.

I then changed the remedy to *Phosphoric acid* 1x. Under this the sp. gr. went down three or four degrees in about three weeks. After this I prescribed the *Nitrate* again, in the same dilution; it then seemed to be useful. Some good was afterwards effected by the *Phosphate of lime*; but the chief medicines were *Phosphoric acid* and the *Nitrate of Uranium*.



June 20th, 1870. His general health is wonderfully better; he can now walk some miles. There is dull pressure in the region of the right kidney, and marked melleo-urinous odour of breath; thirst is nearly gone, and other diabetic symptoms have abated to a great degree; pulse 108; r. 18; lids and legs oedematous; *arcus senilis*; tinnitus; nose dull red (was much more so before treatment); tongue deviates slightly to the left; hawking in the morning; anal pricking; rather costive.

*Physical examination.*—Harsh breathing and slight dulness at apices; emphysema with dilated right heart. *Nux vomica* 30.

27th. Eructations every few minutes during an hour's walk; pain feet and legs in bed in morning. 10.30 A.M., day after Turkish bath; tingling upper chest and left arm, with muscular throbbing left side; pain knee and other parts of body; twitching in hands and fingers; tingling in right hand; more laryngeal irritation; mouth sore last week.

AMOUNT OF URINE, THREE DAYS.

June 24th .....	4 pints.
" 25th .....	3½ "
" 26th .....	3 "

Tongue clammy; left arm numb in night; pain legs and feet; left leg swelled at ankle, vertical pain; much sneezing [a very rare symptom with him]; voice weak; before 25th, had two nights consecutively with six hours' sleep—this is unusual. Leaves bed 2 to 4 A.M., and at 6; when gets up at 7 A.M. he hawks more; tinnitus left especially; pressure on each side of sacrum; p. 93, after rising, sit.; p. 94, lying; p. 104, standing; r. 20, lying; r. 24, standing. *Calc.* 30. *Mnque.* xii.

Dec. 1st, 1870. This patient now enjoys his ordinary health, and takes his usual diet. The average sp. gr. is 1023.

Dr. Drysdale, writing on "The Use of Specifics," says (*British Journal of Homœopathy*, Vol. XXV, pp. 596-7, 1867): "We have, indeed, two of the best-established cures of diabetes by Dr. Walker, with a medicine which as yet has not been observed to produce glycosuria, and therefore is presumed to have no direct power over that morbid state. Therefore, either (presuming that the homœopathic is the law of specifics) in those cases the glycosuria was not pathognomonic and idiopathic, or glycosuria will afterwards be found within the sphere of the physiological action of *Phosphoric acid*. Still further, it may be said that even when we know little more of a medicine besides its power of producing the pathognomonic elementary morbid state, we can often use it with success, though here the power of differential diagnosis between it and the, as yet few, others having the same effect fails. Thus of *Nitrate of Uranium* we know little besides its power of producing saccharine urine, and have no means of knowing if it corresponds to the totality of the symptoms. Nevertheless, it has been found good in diabetes; and I have a case now in progress, where the diminution of sugar and amendment of the general health are very striking, though the diet has not been changed at all. It is not satisfactory to employ a medicine so little known in its physiological action; and this does not differ in principle from the error of prescribing from a single subjective symptom. But it shows that the chemical signs are to be dealt with like other signs, and illustrates the remarkable difference between the allopathic and homœopathic modes of reading new discoveries in pharmacodynamics. To the allopathic school, if there exists such a thing except in the character of a sect who admit everything except homœopathy, the fact of *Nitrate of Uranium* causing glycosuria suggests nothing therapeutically, except that it should carefully be avoided in diabetes. To the homœopathic school it, of course, immediately suggests that drug as one of the cardinal remedies, though under what circumstances must be determined by further experiment.

ULCER OF THE STOMACH.

The same author, in the same journal (Vol. XXVII, pp.

306-8, 1869), gives the following case, illustrating the action of the drug in ulcer of the stomach:—

CASE 23rd.—"Miss A. B., æt. 19. Since puberty at 16, had been pale, but for the last two years chlorotic. She had been under the ordinary medical treatment since that time, and had been taking *Iron* off and on, and in various preparations, almost ever since, as well as various tonics and stomachics, &c.

"*Present symptoms.*—Her complexion is pale and chlorotic, worse in the evening, though there is seldom any colour, even under momentary excitement. She has what she terms 'indigestion' an hour after meals, she swells up very much, and has to loosen her dress; then, also, begins a severe grasping pain at the epigastrium, which is tender to the touch. The pain lasts for hours, and then her face becomes quite ghastly; the pain is relieved by lying down, and is worse after animal food or wine. At times she has sudden pains in the loins, hindering standing or walking. The bowels are costive, and she has no appetite. The catamenia irregular; sometimes absent for months, sometimes too frequent, though pale. She is extremely weak and languid, and easily fatigued, and cannot walk half a mile. Excessive beating in the heart from exertion, so that she must stop midway in going upstairs. *Bruit de diable* in the carotids. Besides the chlorosis, I considered there was here round ulcer of the stomach. The patient was therefore ordered to lie down the greater part of the day, and to have any plain, unstimulating diet, without animal food.

"In consequence of reading Dr. Edward Blake's observations on *Nitrate of Uranium*, in the twenty-sixth volume of this journal, I gave that medicine in the dose of one grain of the 1st cent. trituration, three times a day for ten days. The symptoms were then all ameliorated, and there had been intervals of a day free from pain. The medicine was continued, and in ten days more there had been no pain since the previous visit, except once after fish. The pallor and want of appetite continued, and the catamenia were absent. *Pulsatilla* three times a day. In a fortnight she reported that she had had no pain, though fish, fowl and soup had been taken, and she had remained sitting up after meals. The appetite is still small, and there is little improvement in the complexion; but the catamenia came on at the right time, and without pain, though pale in colour. Judging, now, that the ulcer was healed, the digestion improving, and the uterine or ovarian disorder so far removed that *Iron* could be assimilated as pabulum in due quantity, I gave two grains of the *Lactate* at the beginning of dinner daily, continuing at the same time a dose of *Pulsatilla* 1, night and morning. In three weeks the improvement was very great in the complexion and strength, and the appetite for all meats had returned, and no pain or inconvenience was felt after any meal. The improvement continued uninterruptedly till perfect health was restored.

CASE 24th.—*Hæmatemesis.*—I saw the good effects of this drug in a case which I attended at Wellington in Shropshire. A young woman consulted me for recurring hæmatemesis, which was not vicarious, but apparently arose from the presence of gastric ulcer. She was quite cured.  
E. T. B.

CASE 25th.—*Incontinence of Urine.*—In incontinence of urine, a young girl troubled with weakness of the bladder from infancy applied for treatment. She was unable to retain the urine without causing extreme pain, amounting almost to spasms, during the day, and at night passed it freely, without waking, and in cold weather in very large quantities. On taking cold, bloating of the bowels and extremities, also of the face; some tenderness of the bowels, with frequent pain in the left side; appetite poor and extremely dainty, craving sweets; always complaining of derangement of the stomach; very thin and pale. For several years under allopathic treatment, receiving no benefit; and two or three years under homœopathic treatment, without any better success. (*Cantharides*, *Tabacum*, and many other remedies were used.)

At the age of 12 commenced the treatment with a few doses of *Nitrate of Uranium*, 3rd trit. This produced relief at night for a month or six weeks. It then returned. But for the period of a year, administering *Nitrate of Uranium* 3rd, a small dose every night, there was a gradual relief, less frequency through the day, with less uneasiness and less quantities at night, and less pain until full control was gained.

The 1st dilution was then administered, increasing the dose from time to time, until another six months brought about a sure recovery, with good appetite, sound flesh, and ruddy complexion. She remains well.—*Am. Hom. Obs.*

The above was contributed by G. Cook, M.D., Buffalo, N.Y., and copied into Vol. XXIV of *British Journal of Homœopathy*, p. 333.



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For the "Materia Medica," 'Belladonna,' by Dr. R. Hughes.

For the "Repertory," Chap. XV, 'Stools and Anus,' by Dr. H. Nankivell.

The following subjects are also undertaken, and some of them are in a state of forwardness:—

- (1) "Materia Medica" section.
  - 'Conium Maculatum,' by Dr. Dyce Brown.
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# BELLADONNA.

ARRANGED BY RICHARD HUGHES, L.R.C.P.

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# BELLADONNA.

## INTRODUCTION.

### § 1.—NATURAL HISTORY.

THE drug before us is the *Atropa Belladonna* of Linnaeus, one of the Solanaceous group of plants, having for its fellows (among others) *Hyoscyamus*, *Stramonium*, and *Tobacco*. It is the Deadly Nightshade of common English nomenclature: in other countries it seems to be known by its botanical (originally Italian) name. In old Latin writers it appears as *Strychnomania* and *Solanum furiosum*.

Analysis has detected in the plant, besides inert constituents and others (pseudo-toxin, phytocolla, &c.), of uncertain action, the alkaloid known as *Atropia*.

### § 2.—PHARMACY.

*Belladonna* appears in the last edition of the 'British Pharmacopœia' in several preparations, for which are used "the leaves, fresh and dried, and the fresh branches, gathered, when the fruit has begun to form, from wild or cultivated plants in Britain." The root also is used in the preparation of the Liniment. The Tincture (which most concerns us here) is made with an ounce of the powdered leaves to a pint of proof spirit. It is thus of the strength of about one to twenty.

*Atropia* finds place here as a "Liquor," containing four grains to the ounce, *i.e.* 1 part to 120.

In homœopathic practice *Belladonna* is used in the form of a tincture prepared from the entire plant; for which purpose it is gathered in June, when beginning to flower. In other countries, and hitherto in this, the expressed juice has simply been mixed with equal parts of alcohol for the "mother-tincture." But the 'British Homœopathic Pharmacopœia' (1870) directs this matrix to be made with proof-spirit by percolation, in the proportion of one part\* to ten. The farther "attenuations" used in this practice are also made differently: as in the Hahnemannian tincture the juice is regarded as the zero, while, according to the 'British Homœopathic Pharmacopœia,' the tincture itself takes that place. Unless or until this (unhappy) arrangement is reversed, the attenuations mentioned by homœopathic writers must always be understood as one of the decimal scale less than those we are now using: *i.e.*, their 3rd decimal is our 4th, and so on.

Pilules or globules (prepared by saturation in the tincture) should not be made with any lower attenuation than the 3rd decimal,—this being the earliest in which rectified spirit can be used.

*Atropia* (or *Atropine*) is triturated with sugar of milk, or dissolved in rectified spirit. Its sulphate is dissolved

\* One part, that is, of the soluble matter of the dry plant.

in distilled water for the first two decimal dilutions, in dilute alcohol for the third, and subsequently in rectified spirit (*Brit. Hom. Pharm.*).

### § 3.—LITERATURE.

It is uncertain how long *Belladonna* has been known as a poison. The first undoubted mention of it in this capacity occurs in Buchanan's History of Scotland, who relates that the Scots mixed the juice of *Belladonna* with the bread and drink, which, by the terms of their truce, they were to supply to the Danes, which so intoxicated them, that the Scots killed the greater part of Sweno's army while asleep (*Pereira*). It is thus probable that Shakespeare alludes to it in 'Macbeth,' when he makes Banquo say—

"Have we eaten on the insane root  
That takes the reason prisoner?"

If so, the epithet is in appropriateness worthy of him.

Since the beginning of the seventeenth century, *Belladonna* has been extensively used as a medicine, and pathogenetic effects in the full doses commonly given were often noted. The tempting character of its berries, moreover, led to frequent accidental poisonings by it; and the records of these in medical literature are full and numerous. Hahnemann embodied in his 'Materia Medica Pura' most of these materials then extant; and added to them the results of his experiments of the healthy, which I shall presently describe. The following pages are an attempt to bring down his work to the present day, by weaving into it all that has since been ascertained as to the pathogenetic effects of the drug. I must preface them by some remarks on—I. The sources of my materials; and, II. The plan of their arrangement.

I.—The main sources from which I have drawn the present collection of the physiological effects of *Belladonna* are five in number. They are referred to under each symptom as *Hahnemann*, *Harley*, *Hale*, *Hughes*, or *Schneller*. The following is an account of what these names signify.

#### HAHNEMANN.

This physician, having arrived at the doctrine that "similia similibus curantur" was the genuine law of drug-healing, logically set about the providing of materials wherewith to work the method. These must obviously consist of a collection of the effects produced on the healthy subject by the various medicines available to us. There lay ready to his hand the records of the results of



poisoning and overdosing, of which I have already spoken. But these belonged only to the more potent poisons; and, even with these, rarely gave more than the crude and violent action of the substance. Rightly to apply drug-effects to the multiform and minute phenomena of disease, to obtain true similars to all morbid states, it was necessary to know the pathogenetic action of very many medicaments, and this in its subtler shades as well as its more striking features. To arrive at this knowledge Hahnemann determined to "prove" medicines on the healthy subject.

His first publication was entitled 'Fragmenta de viribus medicamentorum positivis,' and was published in 1805. In this work he includes 27 drugs. He gives first a list of symptoms observed by himself during experimentation on the healthy; and then, under the head of each author cited, certain symptoms of poisoning or overdosing recorded in medical literature. Belladonna, in this collection, has 102 symptoms from Hahnemann, and 304 more from 47 authors cited.

Subsequently, Hahnemann gathered around him a band of disciples, who united with him in the task of proving medicines. The results of their conjoined work were published in his *Reine Arzneimittellehre* (1st Ed., 1811-1821: 2nd Ed., 1822-1827: 3rd Ed., 1830-1833). In the first two editions symptoms obtained by his fellow-provers followed his own, together with those cited from authors: in the third edition (of which only vols. I and II were published) all are mingled together in a systematic list. In this Belladonna has 1440 symptoms ascribed to it, of which 390 are from Hahnemann himself, 585 from thirteen fellow-provers, and 475 from seventy-two authors. The symptoms are presented in a detached form, in an order mainly anatomical: first those of the head and face, then those of the eyes and ears, and so on. To each is appended the name of its observer, and to many the length of time after the ingestion of the drug at which they appeared.

I need hardly say that for the practice based on the Hahnemannian doctrine this collection of symptoms has been simply invaluable. But I am also bold to maintain it to be a contribution of high and permanent worth to medical knowledge as such. It is admitted by every school of treatment that the physiological action of drugs must be known to enable them to be used as therapeutic agents. Now in the symptoms furnished by Hahnemann and his fellow-provers we have a mass of information regarding this action, which it would be simply suicidal to ignore. There is not the least reason to doubt the genuineness of the effects ascribed to the present drug. They were obtained from material doses; and every care was taken to sift the truly medicinal action from the results of other causes. Let us hear Hahnemann himself, in the preface to the 1st vol. of his third edition:—

"In those experiments which have been made by myself and my disciples, every care has been taken to secure the true and full action of the medicines. Our provings have been made upon persons in perfect health, and living in contentment and comparative ease.

"When an extraordinary circumstance of any kind,—fright, chagrin, external injuries, the excessive enjoyment of any one pleasure, or some event of great importance, supervened during the proving, then no symptom has been recorded after such an event, in order to prevent spurious symptoms being noted as genuine.

"When that circumstance was of no importance, and could not be supposed to interfere with the action of the medicine, then the symptoms have been placed in brackets, for the purpose of informing the reader that they could not be considered decisively genuine."

To this we may add the testimony of one of the disciples who still survives, the venerable Constantine Hering, of Philadelphia:—

"Hahnemann's way of conducting provings was the following: After he had lectured to them on the rules of proving, he handed them the bottles with the tincture, and when they afterwards brought him their day books, he examined every prover carefully about every particular symptom, continually calling attention to the necessary accuracy in expressing the kind of feeling, the point or the locality, the observation and mentioning of everything that influenced their feelings, the time of day, &c., &c. When handing such a paper to him, after they had been cross-examined, they had to affirm that it was the truth and nothing but the truth, to the best of their knowledge, by offering their hands to him,—the customary pledge at the universities in Germany, instead of an oath. This was the way in which our master built up his *Materia Medica*."\*

It will have been seen by the latter quotation that the symptoms obtained in these provings are mainly subjective. But herein consists their special value. Four-fifths of the symptoms of most patients we have to treat consist of their sensations: and by whatever method we apply the physiological effects of drugs, we must know these on their subjective as well as their objective side if we are to fit them to the phenomena of disease. Now in poisonings, and still more in the favourite modern method of experimentation on animals, we get little beyond the large general effects which strike the senses of the observer. If it were only for this, the proving of medicines would be indispensable to a full knowledge of their physiological action. When we consider, moreover, how many of the phenomena of poisoning are due to the violent expulsive efforts of the organism, we must prize a method which introduces the drug by gentle and silent processes, and patiently notes the results which follow upon its absorption and dissemination throughout the frame. Observe, for instance, how rarely headache is recorded as occurring in poisoning by Belladonna,—only just often enough, indeed, to show it to be no imaginary effect of the drug when following its ingestion by the provers. But then read the long list of cephalalgic symptoms furnished by them, and see what a valuable addition it is to our knowledge. For us who practise according to the method *similia similibus* it has placed Belladonna foremost among the remedies for this malady.

I have, therefore, adopted without alteration (save by re-arrangement) or curtailment the whole body of symptoms furnished by Hahnemann and his fellow-provers. But it is otherwise with the symptoms he has cited from authors. I have, in the first instance, examined the original sources of these, so far as they were accessible. The result, in its several effects of verification, illumination, or correction, I have detailed and exhibited in vol. xxxi of the *British Journal of Homœopathy*. Having thus before me his collection in an intelligible and genuine form, I have exercised the utmost freedom in using it for the purposes of this arrangement. I have dealt with it as I conceive he

\* 'Hahnemannian Monthly,' November, 1872.



himself would have done had he now, in life and vigour, to prepare a new edition of his *magnum opus*. While omitting no sure effect of the drug he has thought worthy of insertion, I have frequently substituted for the descriptions of casual observers the more precise records of modern experiment and observation. And I have, in several instances, retraced his steps through the records then extant, and gleaned phenomena left unnoticed by him, but which subsequent knowledge has invested with importance or interest.

The following is a list of the authors cited by Hahnemann whose observations I have used, with a brief account of the circumstances under which these latter were made in each instance:—

- ACKERMANN.—(Struve's 'Triumph der Heilkunde,' vol. iii.)  
This work I have been unable to obtain (p. 667).\*
- ALBRECHT.—('Commerc. lit. Nor.', 1731.)  
A poisoning of two adults and a boy by the berries (p. 304).
- BALDINGER.—('Neues Magazin f. Aerzte,' vol. i, p. 30.)  
A poisoning of four adults by the berries (p. 661).
- BAYLIE.—('Practical Essays on Medical Subjects,' p. 37.)  
This work I have been unable to obtain.
- BOUCHER.—('Journ. de Méd. et de Chir., Vandermund,' Avril, 1766.)  
A poisoning of five children by the berries (p. 496).
- BUCHAVE.—('Samml. auserlesener Abhandlungen zum Gebrauche praktischer Aerzte,' Leipzig, vol. xiv, part 3.)  
Symptoms observed in whooping-cough patients after the administration of large doses of the extract (p. 664).
- BUCHOLZ.—('Hufeland's Journal,' vol. v, pt. 1, p. 222.)  
Effects of two-grain doses of the powdered root given to a boy as prophylactic of hydrophobia (p. 203).
- BUCH'OLZ.—(in Vicat, q. v.)  
A poisoning of a young boy by the berries (p. 495).
- CAEL.—('Act. Nat. Cur.', vol. iv.)  
Symptoms produced by a decoction of the root in a chronic sufferer from rheumatic gout (p. 485).
- CULLEN.—('Materia Medica.')  
Effects of the infusion in a sufferer from cancer of the lips (p. 488).
- DE LAUNAY D'HERMONT.—('Hist. de l'Acad. des Sciences,' 1756.)  
A poisoning of an adult with the berries (p. 205).
- DE S. MARTIN.—('Journ. de Méd.,' xviii, Août.)  
No communication from this author is found here (p. 666).
- DILLENIUS.—('Misc. Nat. Cur.', Dec. iii, ann. 7-8, obs. 161.)  
A poisoning of a mother and six children by the berries (p. 208).
- DUMOULIN.—('Med. chir. Wahrnehm.', Altenb., vol. ii, p. 78.)  
This work I have been unable to obtain (p. 666).
- EB. GMELIN.—('Nova Act. Nat. Cur.', vol. vi, appendix.)  
A poisoning of an old man by the berries (p. 210).
- EL. CAMERARIUS.—(Wepfer's Hist. Cicutæ.)  
A poisoning of four children by the berries (p. 662).
- ELFES.—('Rust's Magazin,' vol. xxi, part 3.)  
A poisoning of a boy of seven by the berries (p. 662).

\* These references are to the pages of the volume of the 'British Journal of Homœopathy,' in which the account of each observer is given.

ERHARDT.—('Economische Pflanzenhistorie,' vol. x, p. 126.)

An effect of the berries in a boy of seven (p. 664).

EVERS.—('Berliner Samml. iv.')

I can find no communication from this author in the place named.

FABER.—('Strychnomania.')

A general account of the effects of Belladonna under this name (p. 660).

GLIMM.—('Nova Acta Nat. Cur.', vol. ii.)

A poisoning of a child of three by the berries (p. 209).

GMELIN.—('Pflanzengifte,' p. 296.)

A general statement of the poisonous effects of the plant (p. 487).

GÖCKEL.—('Frankische Samml.', vol. iii.)

A poisoning of a child of five by the berries (p. 660).

GRADING.—('Ludwig's Adversaria Medica Practica,' vols. i & ii.)

A series of twenty-three cases of epilepsy, treated for a length of time with the powdered leaves, half a grain three times a day to begin with, but increasing to much fuller doses. Care has been used in selecting symptoms from such a source, and only the most unquestionable have been retained (p. 70 and 668).

G-CH.—('Hufeland's Journal,' vol. xvii, part 1.)

The effects of an infusion of Belladonna leaves given as an injection for incarcerated hernia (p. 492).

HASENEST.—('Acta Nat. Cur.', vol. iii.)

A poisoning of a young woman by the berries (p. 485).

HENNING.—('Hufeland's Journal,' vol. xxi, part 1.)

Effects of Belladonna when given in grain doses of the powdered leaves for the cure of pemphigus (p. 494).

HOCHSTETTER.—('Observationes Medicae,' 7th decade.)

Effects of an infusion of Belladonna in an adult (p. 205).

HORST.—('Opera,' vol. ii, p. 488.)

Poisoning by the inspissated juice of Belladonna in an adult (p. 663).

HOYER.—('Miscell. Nat. Cur.', Dec. iii, ann. 7 and 8, Obs. 176.)

Poisoning by the berries in an old woman (p. 208).

'HUFELAND'S JOURNAL,' vol. xvi.

I cannot identify this citation.

JUSTI.—('Hufeland's Journal,' vol. vii, part 4, p. 65.)

Effects of a single full dose of Belladonna given to an adult as prophylactic of hydrophobia (p. 203).

LAMBERGEN.—('Lectio inauguralis sistens Ephemeridem persanati Carcinomatis.')

A narrative of the treatment (for five months) of some mammary indurations by an infusion of Belladonna (p. 489).

LENTIN.—('Beobachtung einiger Krankheiten,' Gottingen, 1774.)

Effects of Belladonna in a case of mammary scirrhus (p. 664).

LOTINGER.—('Med. chirurg. Wahrnehm.', Altenb., vol. ii, p. 326.)

I have been unable to obtain this work (p. 666).

MANETTI.—('Viridarium Florentinum,' Florence, 1751.)

Poisoning of a puppy by the juice of the berries (p. 487).

MAPPUS.—('Historia Plantarum Alsatiarum.')

Fatal effects of a large quantity of the juice mixed with wine (p. 664).



- MARDORF.—('Dissertatio de maniacis Giessensibus.')  
A poisoning of several persons by the berries (p. 491 & 207).
- MAY.—('Hannöver Mag.' 1773, No. 97.)  
I have been unable to obtain this volume. In his 'Fragmenta de Viribus' Hahnemann says that May's symptoms were obtained "a baccis in infantibus" (p. 666).
- MED.-CHIRURG.-WAHRNEHM., vol. vii.  
This journal also I have failed to obtain (p. 666).
- MEZA.—('Sammlung auserlesener Abhandlungen zum Gebrauche praktischer Aerzte,' Leipzig, vol. xiv, part 4.)  
Effects of a five-grain dose of the powdered leaves in a case of tumour of the breast (p. 664).
- MOIBANUS.—('Schenckii Observationes Medicæ.')  
Poisoning of a man by the berries (p. 663).
- MÜLLER.—('Horn's Archiv,' ix.)  
No communication from any Müller is contained in this volume (p. 667).
- MÜNCH.—('Richter's Bibliothek,' v.)  
Effects of large doses (gr. 4-14) of the powdered root given as prophylactic of hydrophobia (p. 202).
- OLLENROTH.—('Hufeland's Journal,' vol. vii, part 4.)  
Effects of Belladonna given in a case of mammary scirrhus (p. 494).
- PORTA.—(in Schenck—see Moibanus.)  
Effects of a strong infusion (p. 663).
- RAU.—('Acta Nat. Cur.', vol. x, Obs. 24.)  
A poisoning of a man of fifty by the berries (p. 484).
- REMER.—('Hufeland's Journal,' vol. xvii, part 2.)  
Effects of full doses of the powdered root in a case of melancholia occurring at the climacteric (p. 494).
- SAUTER.—('Hufeland's Journal,' vol. xi.)  
A poisoning of a child of six by the berries (p. 201).
- SAUVAGES.—('Nosologie,' ii, 2, p. 338.)  
No observations of this kind are to be found at the page specified, nor in other places to which the index led me as probable seats of them (p. 667).
- SCHÄFFER.—('Hufeland's Journal,' vol. vi.)  
Effects of Belladonna given to children for pertussis (p. 492).
- SCHRECK.—('Commerc. lit. Nor.', 1743.)  
A fatal poisoning of a boy of three by the berries (p. 488).
- SICELIUS.—('Diatriba de Belladonnâ,' Jena, 1724.)  
I have been unable to obtain this treatise (p. 665).
- TIMMERMANN.—('Diss. Periculum Belladonnæ.')  
Of this also I have found no trace in the libraries to which I have had access (p. 667).
- VICAT.—('Plantes vénéneuses de Suisse.')  
An account of the general effects of the leaves and berries (p. 495).
- WEINMANN.—(in Gmelin, q.v.)  
This author is simply cited by Gmelin as vouching for the effect of Belladonna (s. 651) to which his name is attached.
- WIERUS.—(in Schenck—see Moibanus.)  
A poisoning occurring in an adult (p. 662).
- WIEDEMANN.—('Hufeland's Journal,' vol. xvii, part 1.)  
Effects of Belladonna given freely to children for whooping-cough (p. 492).
- ZIEGLER.—('Beobachtung,' Leipzig, 1787, p. 21-38.)  
This work I have been unable to obtain (p. 666).  
As regards translation,—I at first adopted the version

made by Dr. Galloway, and published in vols. viii and ix of the 'Monthly Homœopathic Review.' On going over my work again, however, I have compared his renderings with those of Dr. Hempel, and both with the original; so that I am myself responsible for the fidelity of the translation in all that follows.

Finally,—the following signs are used for Hahnemann's symptoms:—

- 1.—The symptoms in rounded brackets ( ) are those so marked as doubtful by Hahnemann himself.
- 2.—Symptoms in square brackets [ ] have the same signification, but have received it in consequence of the researches I have made into their originals.
- 3.—Symptoms in italics and square brackets are such of those cited from authors as I have been unable to verify.
- 4.—Symptoms in small capitals are those which Hahnemann himself has emphasized by his type.

## HALE.

PROVINGS OF ATROPINE (Transactions of the Homœopathic Medical Society of the State of New York, 1868).

These provings were made by four medical students, under Dr. E. M. Hale's superintendence.

The 1st prover was 21 years of age. He took several doses of from one to five grains of the 2nd decimal trituration (i.e. 1 to 100).

The 2nd prover took, on two occasions,  $1\frac{1}{4}$  grain of the 1st dec. trit. (i.e. 1 to 10).

The 3rd and 4th provers took each one dose of 2 grains of the same preparation.

[It is possible that some exception may be taken to my including symptoms produced by Atropine in a pathogenesis of Belladonna. But I have done so deliberately and advisedly. I am unable to discover the least difference *in kind* between the poisonous effects of the drug and those of its alkaloid. Their therapeutical distinctions, if any, will be hereafter discussed. The references will always enable any prescriber to choose (if he please) Belladonna or Atropia, according as the symptoms were produced by the one or the other.]

## HARLEY.

THE OLD VEGETABLE NEUROTICS (Macmillan, 1869).

The chapter on 'Atropa Belladonna' contains a record of various experiments (mainly conducted with Atropia hypodermically administered) on horses, dogs, and the human subject.

## HUGHES.

CASES OF POISONING BY BELLADONNA, WITH COMMENTARIES ('British Journal of Homœopathy,' vol. xx.)

The following is a brief account of the subjects of the poisoning, and the form and quantity of the poison, in the cases cited. The numbers are those of the paper itself and of the references in the following pathogenesis:—

I.—A boy æt.  $3\frac{1}{2}$ , who swallowed a solution containing nearly half a grain of Atropia.

II.—A child between two and three years of age: the quantity swallowed, from eight to twelve grains of the extract of Belladonna. The symptoms developed themselves within an hour.

III.—Dr. Gray, of New York, took from eight to ten grains of the extract, and describes his own symptoms.



IV.—An adult, who drank half an ounce of Liquor Belladonnæ.

V, VI, and VII.—Boys of about ten: the dose, unknown quantities of the extract.

VIII.—A child of seven: form and dose not recorded.

IX.—A feeble child of four, who ate a quantity of the berries.

X.—A lady, æt. 34: a drachm of extract of Belladonna was swallowed in an ounce and a half of soap liniment.

XI.—Six persons poisoned by the berries. The reporter groups them according to the degree of the severity of the symptoms. Groups 1 and 3 are adults, 2 and 4 children.

XII.—Ten persons similarly poisoned. The one case given at length is of a man of twenty-three.

XIII.—An adult: the symptoms resulting from the application of a Belladonna plaster to an abraded surface of skin. They began in an hour and a half.

XIV.—Seven cases of poisoning by Belladonna berries. Ages not stated.

XV.—A boy, æt. 14, who ate about thirty of the berries.

XVI.—A man, æt. 75, poisoned by the extract. Quantity uncertain, supposed to be five grains.

XVII.—Miscellaneous instances in which the throat was affected.

XIX.—A man, æt. 34, who ate about fifty berries.

XX.—Experiments by Lusanna, with varying doses of Atropia.

#### SCHNELLER.

A proving of the extract of Belladonna on his own person, as recorded in vol. vi of the 'British Journal of Homœopathy.' He took it in doses increasing from gr.  $\frac{1}{4}$  to gr.  $\frac{1}{2}$ .

A few other authorities are cited with sufficient frequency to make it desirable to specify them here once for all. They are these:—

ANSTIE.—'Stimulants and Narcotics,' London, 1864.

CHRISTISON.—'Treatise on Poisons,' 3rd Ed., Edinburgh, 1836.

HEMPEL.—'System of Materia Medica,' 2nd Ed., New York, 1865.

HÖRING.—Case of poisoning by gr. xxv of Ext. ('Brit. and For. Med. Chir. Rev.', xxi, 525.)

MICHEN.—Experiments with Atropine, in doses of from gr.  $\frac{1}{100}$  to gr.  $\frac{1}{5}$ , on chronic epileptics ('Brit. Journ. of Hom.', xx, 346.)

ORFILA.—'Traité de Toxicologie,' 4th Ed., Paris, 1843.

PEREIRA.—'Elements of Materia Medica,' 4th Ed., London, 1855.

GRANDI in.—As Michen. Doses, gr.  $\frac{1}{15}$  to 1.

SHARPEY.—'Case of poisoning by Atropine' ('Lancet,' 1873, ii, 469.)

TAYLOR.—'On Poisons,' 1st Ed., London, 1848.

TROUSSEAU et PIDOUX.—'Traité de Matière Médicale,' 5th Ed., Paris, 1858.

All symptoms not coming under the above headings have their reference in full.

For the therapeutic element of the Commentary I have made great use of an essay by a veteran of the Homœopathic school, Dr. Hartmann, 'Practical Observations on some of the Chief Homœopathic Remedies.' The volume containing Belladonna is translated by Dr. A. H. Okie, of

America; and bears Baillière's name on the title-page as its English publisher (1846.)

II. It now becomes necessary to state the principles on which I have proceeded in arranging the materials at my disposal.

There were two alternative methods open to me,—the one being the plan adopted in the ordinary treatises on Materia Medica, the other that of the school of Hahnemann. In the former, *description* is aimed at: cases of poisoning are narrated, and sometimes the actions of the medicine are grouped and discussed under various headings. But Hahnemann and his followers have endeavoured to present the physiological effects of drugs in such a manner as shall make them directly subservient to their therapeutic application on the principle "*similia similibus*." This principle may obviously be worked either *à priori*, as when from the poisonous action of any substance we infer what will be the morbid conditions in which it should prove curative, or *à posteriori*, as when, having examined a case, we turn to our pathogenetic records to see what medicine has caused similar symptoms on the healthy. The latter was Hahnemann's ideal plan; and he published his provings in the form best suited to carry it out, *i.e.* as a list of symptoms thrown together according to a "schema" mainly anatomical,—all those of the Head being placed in one category, all those of the Eye in another, and so on.

Now I fully admit that this *à posteriori* method is frequently necessary, and that provision must be made for its working. But I also contend that its true place is one of subservience to the *à priori* mode of proceeding,—by which, indeed, it may often be altogether superseded. Hahnemann's schema gives no help towards this; and therefore, standing alone, is insufficient. On the other hand, the plan of the ordinary treatises, though lending itself well to this way of working homœopathically, does nothing for the other. It is, moreover, too discursive, and facts and theories are too much mixed up in it, for permanent value as a pathogenetic record. We want first of all the facts, as far as they are known: and then, separable from them, such interpretations and suggestions for therapeutic application as may be available. The former will always remain: the latter must vary according to the state of physiological and pathological knowledge, and should stand by themselves.

It has therefore seemed necessary that the following should be the arrangement adopted:—

1st. That a simple statement should be given of the pathogenetic effects observed from Belladonna.

2nd. That this statement should be so fashioned that it may readily subserve the *à posteriori* working of the principle "*similia similibus*."

3rd. That it shall, at the same time, by exhibiting the symptoms in fulness and connection, conduce also to the *à priori* mode of homœopathizing.

4th. That this last object should further be favoured by a detailed commentary, in which the physiological interpretations and therapeutic applications of the ordinary treatises on Materia Medica will find place.

I have thus arrived at conclusions very similar to those which Dr. Drysdale has propounded, in inaugurating this series by his admirable arrangement of Kali bichromicum. I would beg the reader to possess himself of the statement of the whole subject given by Dr. Drysdale there. All I have now to add is to say how far (in the liberty of each independent worker) I have been able to follow, and how far



I have had to modify, the practical details of the arrangement which he vindicates and exemplifies.

1. While agreeing with what Dr. Drysdale has written about the *grouping* of symptoms, I cannot with him think it necessary to place together all the symptoms which occurred simultaneously in a prover or subject of poisoning, so that it is to be understood that "otherwise, the individual was (so far as could be ascertained) in perfect health." This requirement has led, both in his arrangement of Kali bichromicum, and in Dr. Dudgeon's of Aconite, to most unwieldy groups: and has necessitated the appending an "Index" to each section to break these up into their elements. The principle on which I have gone corresponds with that of the Cypher Repertory published by this Society. It is that the whole assemblage of noteworthy symptoms occurring simultaneously should indeed be found under every heading where they can possibly be looked for; but that only the symptoms proper to each heading should there be given in full, the others being supplied by means of references. *E.g.* Sympt. 80 in the class "Perception, Ideation, and Emotion" gives the whole story of the delirium under which the subject of the poisoning laboured; while the references to Sympt. 548, 954, and 1204 show at a glance the coincidence of this disorder with others of the eyes, skin, kidneys, and so on. [Of course this could only be done where we have the original records in full: the symptoms of Hahnemann and his fellow-provers must just stand as they are given us.] Again, suppose the symptom were a simple one, but placed under a different heading from that which might have been expected. It will then be contained in the list given at the beginning of each section. Thus—for the symptom "the hands feel dry and glossy" the sub-section "Hands" might be consulted. It would not be found there, as it occurred, not as a phenomenon of the hands, but of the general surface. But it would be one of the symptoms referred to under the heading "Hands," and would be speedily found in the sub-section "Sensibility."

2. The difference of grouping thus indicated renders the *Index* adopted by Drs. Drysdale and Dudgeon, but not by Dr. Black, unnecessary. By the copious references given, by breaking up as minutely as possible the classes of symptoms, and by a full commentary upon each section, I think I have made the task of searching for symptoms as easy as need be.

3. The *Concordance*, hitherto adopted by all my predecessors, I have dropped for other reasons. Until the

sources of the symptoms cited by Hahnemann from authors have been examined, and until the materials from which he has constructed the pathogeneses of his "Chronic Diseases" have been made known, I cannot conscientiously refer even to his lists as evidence that such and such a symptom has really been produced by a drug. Many of the later provings we possess are still less to be depended on with certainty. I could only, moreover, ascertain concordances from a repertory, and any one who is so disposed may do this for himself. When I *know* that a morbid condition induced by Belladonna has also resulted from some other drug, I say so in the Commentary, and make some attempt at comparison.

4. The *Commentary*, thus fulfilling to some extent the functions of Concordance and Index, aims also at physiological interpretation and therapeutic application, thereby including the introductions and appendices to some of the previous medicines of this series. Its fulness is the special feature of this arrangement: and I hope it may prove interesting and useful.

5. Lastly, as to the structure of the *Schema* according to which the symptoms are arranged. Dr. Drysdale says that "as the Hahnemannian order is familiar to us all, it is on that account incomparably preferable to any other." By "us all" he means those practising homœopathically, whom alone at that time he could address. But as there are now a larger body of medical men likely to appreciate and use these arrangements of medicines, we have other considerations to guide us. The Hahnemannian schema is unexceptionable as regards the sections from "Head" to "Extremities" (save that "Nose" should belong to the respiratory, not the digestive organs). The classification is intelligible and free from theory, being purely anatomical. But beyond these there is great confusion. The disorders of the nervous system are strangely scattered: perspiration, instead of appearing as a function of the skin, always stands among the symptoms of fever, whether it was preceded by this state or not: and sleep is put into a place by itself, often including apoplectic conditions. Moreover, there is the utmost variety existing in the arrangement of this part of the list of symptoms,—Hahnemann differing from himself in the *Materia Medica Pura* and the *Chronic Diseases*, and every subsequent schema-maker having a form of his own. The following table will exhibit some of the varieties. "Drysdale," "Dudgeon," and "Black" refer to the arrangements of the first three medicines of this series.

HAHNEMANN.		JAHN.	DRYSDALE.	DUDGEON.	BLACK.
<i>Mat. Med. Pur.</i>	<i>Chron. Dis.</i>				
		General Symptoms.			
		Skin.			
		Sleep.			
		Fever.			
	Moral Symptoms.	Moral Symptoms.		Moral Symptoms.	
Head to	Head to	Head to	Head to	Head to	Head to
Extremities.	Extremities.	Extremities.	Extremities.	Extremities.	Extremities.
General Symptoms.	General Symptoms.		General Pains and Sensations.		
			Skin and Ulcers.		
			General debility and weariness, &c.	Skin.	Skin.
			Sleep.	General Symptoms.	
			Fever.		
			Mental Symptoms.	Sleep.	Sleep.
			General Nutrition.	Febrile Symptoms.	Fever.
					Mental Symptoms.
					General Symptoms.



Since, then, even if I were to follow authority, I should have to choose my model, I have ventured to frame a new structure for myself. It is, however, merely a more thorough carrying out of the anatomical order designed by Hahnemann. Thus the moral symptoms, the convulsions and paralysees, the disorders of perception and thought, and the perversions of sensibility scattered throughout his lists all belong to the Nervous System: and sleep is no less certainly a function of the capital organ of that system, the brain. Again, fever is a disorder of the circulation: and if Dr. Dudgeon could separate "Heart and Circulation" from the chest and febrile symptoms, I see not why the remainder of the latter should not be ranged under the same heading. In this way two new anatomical classes have been formed, "Nervous System" and "Circulatory Organs," which include all the phenomena of their respective spheres. The subdivision of the disorders of the nervous system into those of "Sensibility," "Motility," and "Perception, Ideation, and Emotion" (the last three running into one another too much to bear separating), hardly needs explanation or defence. Nor need I justify the ranging, under the heading "Skin," all true cutaneous disorders wherever occurring, instead of scattering them through the organs—face, hands, &c.—on which they appeared. Here, also, I have included the modifications of the action of the sudoriparous glands, whenever these occurred independently of preceding fever. Lastly, under the heading "Generalities," I have placed a few symptoms which obstinately defy classification.

The following, therefore, are the categories in which this pathogenesis is arranged:—

#### NERVOUS SYSTEM.

- I. SENSIBILITY.
- II. MOTILITY.
- III. PERCEPTION, IDEATION, and EMOTION.
- IV. SLEEP.

#### HEAD.

#### FACE.

#### EYES.

#### EARS.

#### DIGESTIVE SYSTEM.

- I. JAWS.
- II. LIPS.

- III. TEETH and GUMS.
- IV. TONGUE, with ARTICULATION.
- V. MOUTH.
- VI. SALIVARY GLANDS.
- VII. THROAT and DEGLUTITION.
- VIII. STOMACH and DIGESTION.
- IX. ABDOMEN.
- X. RECTUM and ANUS, with DEFÆCATION.

#### URINARY ORGANS.

- I. URINE.
- II. MICTURITION.

#### GENITAL ORGANS.

#### RESPIRATORY ORGANS.

- I. NOSE.
- II. LARYNX and TRACHEA, including VOICE and COUGH.
- III. BRONCHI and LUNGS, with RESPIRATION.
- IV. WALLS of the CHEST.

#### CIRCULATORY ORGANS.

- I. HEART and PRÆCORDIUM.
- II. PULSE and CIRCULATION.
- III. TEMPERATURE.

#### SKIN.

#### BACK and LIMBS.

#### GENERALITIES.

In conclusion, I have only to express my hope that this presentation of the physiological action of a potent drug will be useful to my medical brethren, whatever be the creed they hold. It is now far from being peculiar to the school of Hahnemann to maintain that, to use drugs properly for the sick, we must know their effects on the healthy. The following pages are just a *catalogue raisonné* of such effects. The inferences drawn from them as to therapeutic application are governed by the law "*similia similibus curantur*," in which the writer has the fullest confidence. But he has not been altogether unmindful of other directions towards which the actions of the poison point: and any who prefer to use the drug as a contrary can do so herefrom as readily as those who use it as a similar. Which will get the greater profit out of it as a remedy is another question; and a question towards the settlement of which such a collection as this is a necessary contribution.



## PATHOGENESIS, WITH COMMENTARY.

## NERVOUS SYSTEM.

## SENSIBILITY.

1. Great irritability and impressionableness of the senses; he tastes and smells everything more acutely; the sense of taste, of sight, and of hearing is keener, and the mind is more easily moved and the thoughts more active—3 hours after (*Hahn*, also *Harley*).
2. If touched by any person, she jumped as if in great alarm. This I observed to occur whenever her hair was removed from her face, or when I felt her pulse—11 hours after (*Hughes*, X).
3. Upon recovering perfect consciousness (30 hours after) a remarkable numbness, extending over all parts of the trunk and extremities, attracted attention, and persisted for several days. No pain could be excited while this condition continued, by forcibly pinching the skin of the forehead or of other parts; and although an unusual sensation was perceived by the patient at the moment, he could not with his eyes averted from the operation point out the precise spot subjected to compression (*Ibid.*, IV).
4. Slight numbness and prickling in the hands, extending to the tips of the fingers. The prickling soon ceased, but the numbness continued and increased until touching an object did not produce the slightest sensation. Upon attempting to place the hand upon a table, he could not tell when the hand touched it. Thrusting pins into the skin caused no sensation of pain. Water, either warm or cold, glides over the surface of the body without moistening it or producing any appreciable sensation. This anæsthesia continued several hours (*Hale*, I). [s. 668.]
5. The hands, while numb, felt dry and glossy (*Ibid.*).
6. Numbness and partial loss of sensation in the fingers: he feels as though he were holding a book in his hands which he is afraid he will drop; upon taking a small object, as a pea, into his hand, it seems to him as though there were five or six of them (*Ibid.*, II).
7. Sensibility to tickling and pricking notably diminished (*Michen*).
8. Numbness of the limbs and sensation of formication in the arms (*Pereira*: from Atropia).
9. Great weakness of the left side, numbness of the left face and arm, and a prickling sensation in the same parts—from application of the extract to the forehead (*Lancet*, 1844, I., 251).

10. Several weeks after her apparent recovery she became affected with loss of sensation at the fingertips, formication, sleeplessness, illusions of sense, headache, lassitude, and gastric disturbance (*Brit. Journ. of Hom. XXIV*, 186, from gr. ij of Atropia), [s. 1133.]

## Commentary.

The sensory disturbance caused by Belladonna seems to vary according as the centre or the periphery is most affected. In the former case we have the hyperæsthesia of s. 1 and 2. It is associated with tendency to jactitation of the muscles and delirium:—in s. 2 it preceded the development of active cerebral congestion (s. 373). But when the stress of the drug's influence falls upon the peripheral nerves, we have the anæsthesia of s. 3-10. It is a comparatively rare phenomenon; and hardly ever occurs except when the poison is given in the form of Atropia. But it consorts well with the amaurosis of Belladonna itself. It is very complete,—extending not only to touch, but to painful impressions, tickling, and temperature.

The hyperæsthesia of Belladonna compares with that of Hyoscyamus and Stramonium; of Coffea; and of Nuxvomica and Ignatia. The three last have not its inflammatory-like influence on the nervous centres. As an anæsthetic Aconite is its analogue (see s. 4, 8, 9).

Increase of sensibility, in connexion with headache, fever, or other conditions in which the nervous centres are implicated, is always found to be an indication for Belladonna in homœopathic practice. To this point the statements of Pereira are singularly though unconsciously pertinent. "In the first degree of its operation," he writes: "Belladonna diminishes sensibility and irritability. This effect (called by some sedative) is scarcely obvious in the healthy organism" (we have seen indeed that the effect is just the other way), "but is well seen in morbid states, when these properties are preternaturally increased." The only general anæsthesia which would indicate it (unless it be the hysterical) is that which obtains in mental disorder, to which Belladonna is otherwise so strikingly homœopathic.

## MOTILITY.

11. Occasional jactitation (*Hughes*, I: also *Rau* and two others in *Hahn*).
12. Subsultus tendinum and carphologia (*Elfes*, in *Hahn*).
13. Five or six times convulsive catchings of the extremities, face, and trunk,—such, he says,\* as animals

\* The patient was employed in the Zoological Gardens.



- have when bitten by venomous serpents—5 hours after (*Hughes*, XIII).
14. Spasmodic twitchings for some days—from three grains of the extract (*Lancet*, 1854, I, 212).
  15. The muscles of his face, jaws, and limbs, were agitated by convulsive twitchings—from the leaves (*Taylor*, p. 839).
  16. Jerkings of muscles, particularly those of the legs, arms, and face. While attempting to drink from a glass, his arm suddenly contracted, and the water was spilled. While walking, the flexor muscles of one or both legs would suddenly contract, throwing him to the ground. He did not dare to walk across the room, for fear of falling (*Hale*, I). [s. 87.]
  17. Awakened several times in the night by spasmodic jerkings of the muscles of the legs—18 hours after (*Hale*, IV).
  18. Convulsive momentary extension of the limbs on awaking out of sleep (*Hahn*).
  19. (Painful) twitchings in the arms, more in the right than in the left leg (*Stapf*, in *Hahn*).
  20. The arms and hands were in continual contortions (*Boucher*, in *Hahn*). [s. 496.]
  21. Incessant movement of the body, especially of the arms (*Ibid*).
  22. The whole body is in constant movement hither and thither, as in chorea (*Ibid*).
  23. Frequent and almost uninterrupted spasmodic jactitations, sometimes so violent as to make it necessary to prevent him from being rolled, or partly thrown, out of bed. The movements of the limbs were of a changing character, now simulating chorea, now hysteria, and, after a little while, tetanus, even to opisthotonos ('*Brit. Journ. of Hom.*', XXI, 163. Boy æt. 10 poisoned by berries).
  24. Lockjaw (*Hahn*.; and *May* in *Hahn*).
  25. She clenched her teeth together, so that great force could not open them (*Hasenest*), with startings in all the limbs and chilliness (*Münch* in *Hahn*).
  26. She closed her teeth so firmly that it became necessary to break out a tooth in order to pour fluids down her throat (*Baldinger* in *Hahn*).
  27. Convulsive closing of the jaws, and contraction of the muscles of the face and extremities.  
Next day, increase of convulsive movements, with redness of the face, and profuse perspiration: great rigidity down the spine (*Hughes*, IX). [s. 910.]
  28. The action of Atropia throws the frog into an excessively nervous state; the least disturbance causes great agitation, with increase of the respiratory movements, and a touch often throws the animal into a tetanic convulsion (*Harley*).
  29. When the animal begins to recover from the paralyzing effects of Atropia, it enters a stage in which it appears as if suffering from Strychnia (*Fraser*, in *Harley*).
  30. Stiffness of the whole body (*Erhardt*, in *Hahn*).
  31. Frequent stiffness and immovability of the limbs: for instance, he was not able to stir his left foot (*Stf*, in *Hahn*).
  32. Stiffness of all the limbs, under the semblance of a feeling of lassitude (*Hahn*).
  33. Soporose condition, with violent convulsions of the extremities: head very hot, face very red (*Hughes*, XI, 4).
  34. The patient's manner was apoplectic, and severe engorgement of the vessels was present. This state of partial coma was alternated by paroxysms of uncontrollable tendency to motion and rapid automatic movement, attended with convulsive laughter. No well-marked convulsions made their appearance, although, during the brief intervals of sleep into which the patient would fall, a slight subsultus of the muscles of the face and extremities was noted (*Hughes*, II).
  35. When the medicine has been given in gradually increasing doses, there is subsultus; when a single large dose has been given, convulsions occur (*Lusanna*, in *Hughes*).
  36. The effect of Atropia on the motor nervous system is exhibited in convulsions, which, like those in epileptic fits, almost always begin in the muscles of the neck and face (*Michen*).
  37. Convulsions, distortion of all the muscles (*Rau*, *Eb. Gmelin*, *Münch*, and others in *Hahn*).
  38. Alternate strange distortions of the limbs and complete immobility (*El. Camerarius*, in *Hahn*).
  39. Repeated convulsions and horrible spasms, especially of the flexor muscles (*Glimm*, in *Hahn*).
  40. Strong convulsions and very loud ravings (*Baldinger*, in *Hahn*).
  41. Insensibility, rattling breathing, and convulsive movements in the face and hands (*Ibid*).
  42. Tremendous spasms, simulating true epilepsy. In the intervals free from spasms she uttered the most violent cries, as if she were suffering great pain (*Glimm*, in *Hahn*).
  43. Epileptic convulsions, followed by an apoplectic condition (*Wagner*, in *Hahn*).
  44. Restlessness is a marked result of the action of Belladonna in excessive doses (*Harley*).
  45. It was impossible to keep him in bed and very difficult to prevent his walking about—2 hours after (*Sharpey*).
  46. Bodily inquietude; he was obliged constantly to move the whole body to and fro, and especially the hands and feet; he cannot stay long in any position, now he lies, now he sits, now he stands, so that he is always changing his posture in one way or another (*Hrn*, in *Hahn*).
  47. Great uneasiness in all the limbs, so that he did not know where to put himself (*Hahn*).
  48. She was much annoyed by a constant sensation of trembling in all the muscles of the body (*Hughes*, X: also *Horst* and two others in *Hahn*). [s. 373.]
  49. Trembling in all the limbs, inability to walk, distended veins over the whole body, and disagreeable sense of irritation in the throat, for several days (*Baldinger*, in *Hahn*).
  50. Trembling and lassitude of the limbs (*Greding*, I, in *Hahn*).
  51. [Lassitude of the limbs] (*Sicelius*, in *Hahn*).
  52. Paralytic lassitude in both legs below the knee (*M&I*) in going up-stairs (*Stf*, in *Hahn*).
  53. Indolence in all the limbs and indisposition to work (*Gss*, in *Hahn*).
  54. In proportion as the doses of Atropia augment, the limbs, and especially the lower, though still under the control of the will, become heavy and inactive (*Grandi*, in *Pereira*).



55. Unsteadiness of the head and hands (*Hahn.*).
56. In most of the cases, the power of the will over the muscles was so far disordered, that the muscular movements were somewhat irregular, causing a kind of staggering or jerkings (*Hughes*, XIV.).
57. Loss of co-ordination of the muscles of both upper and lower extremities, very like the heaviness and helplessness of movement which is observed in the first stages of the progressive paralysis of the insane (*Michen*).
58. Tottering gait (*Hughes*, XI. 2).
59. He could not stand. She lifted him up, and told him to run along; but he again fell, and appeared to have no power of standing—1 hour after (*Hughes*, I). [s. 183.]
60. It was some days before she was able to walk, even with the assistance of a person on each side of her: this inability to walk did not arise from weakness, but she appeared to have lost all power of controlling the action of her legs (*Hughes*, X).
61. He displayed considerable strength, but his movements were rather unsteady, as if he had lost some control over his limbs, both arms and legs—5 hours after.  
13 hours later—he could move his body and limbs, but only by a great effort, and when he raised his arms they felt as if made of lead (*Sharpey*).
62. He seemed to exercise very little control over the lower extremities, and to have very little power in them. It was clear that he must have fallen to the ground had he been left without support. On being led about both legs dragged, but neither one more than the other—8 hours after (*Hughes*, XIII).
63. Heaviness of the hands and feet (*Baehr*, in *Hahn*).
64. Paralytic weakness of all the muscles, especially of the feet (*Hahn*).
65. Weakness, with tottering gait, the knees feel as if they would give way; he cannot walk (*Ibid.*).
66. Paralytic weakness of all the muscles of the upper and lower extremities—6 days after (*Hbg.*, in *Hahn*).
67. Powerlessness of the lower limbs, so that she must lie down, with nausea, trembling, anxiety, and vertigo (*Baldinger*, in *Hahn*).
68. [Paralysis of the lower extremities, together with the neck of the bladder and the sphincter ani] (*Dumoulin*, in *Hahn*).

*Commentary.*

The motor disorder caused by Belladonna runs fairly parallel with its sensory disturbance, but it is of more varied character. The symptoms are seen to begin with pictures of excitement, and to end with those of depression; while along the range we have glimpses of chorea, tetanus, eclampsia, epilepsy, and paralysis. Let us look a little more closely at each.

1. *Chorea* is plainly figured in s. 11–23, especially in s. 16. This “insanity of the muscles” may well be caused by a deliriofacient like the present drug. Its congener, Stramonium, is largely used in homœopathic practice in the treatment of chorea.

2. S. 24–32 are *tetaniform* in character: and are compared by one of the experimenters to the effects of Strychnia. I do not know that Belladonna has ever been tried in traumatic tetanus:—there would at any rate be no objection to such practice on the score of lack of homœo-

pathicity. Hartmann recommends it where tetanus is impending.

3. The tonic spasms of Belladonna are rarely without some cerebral complication,—if even they do not originate within the cranium. But its clonic convulsions—when not choreiform—are plainly of cerebral rather than spinal origin; and well warrant the large use made of it in our school in *eclampsia*, infantile and puerperal. S. 33, 34 picture this malady wholly or in part; and Belladonna is recognized by all homœopaths as its prime remedy, especially when much cerebral hyperæmia is present. “It will seldom happen,” writes Dr. Bähr,\* “that a second attack of convulsions (infantile) will occur after the administration of Belladonna.” It is hardly less valuable in puerperal convulsions similarly characterized.

4. Of the pathogenetic relation of the drug to *epilepsy*, as indicated in S. 41–43, I will speak in the words of the same excellent writer. “Belladonna has among its pathogenetic symptoms the whole series of the phenomena which characterize an epileptic paroxysm, on which account it deserves to be ranked with Cuprum and Plumbum. A careful examination of its pathogenesis reveals, however, some essential differences. The epileptic Belladonna-convulsions are the consequences of an intense intoxication of the organism; while running their course they may recur several times, but never in the form of a chronic affection, as is the case with Cuprum and Plumbum. Hence the Belladonna-convulsions, as we indeed know from experience, correspond rather to eclampsia, which has been very properly designated as acute epilepsy.” To this I will add Dr. Russell’s practical observations on the same point.† After relating four cases of epilepsy in which cure or great improvement resulted from Belladonna, he continues: “I have since had a number of such cases under my care. I must make the mortifying confession that, although even in apparently very bad cases, I have been able to effect great improvement; yet that, in very many, I have found myself entirely baffled; and the tantalizing feature of the affair is, that I find I cannot pronounce with confidence as to the probability of the issue in any given case. I know of no special indications for the use of Belladonna, nor do I know, beforehand, whether a case will get better or worse, or remain stationary. I have been disappointed in cases which looked the most promising; and, again, other cases which presented all the worst appearances have been the most benefited.”

5. So far the motor disturbance of Belladonna seems to result from its irritant influence on the nervous centres, analogous to the hyperæsthesia we have seen it causing. But now with S. 48 paralytic symptoms, answering to the anæsthesia, begin to appear. Dr. Harley may be right in saying that true paralysis with Belladonna always results from exhaustion. But in S. 54, 57–61 there appeared comparatively early in the poisoning a loss of standing and walking power, which one observer (S. 57) compares to that of the first stage of the progressive paralysis of the insane. I have suggested, however,‡ that it most resembles that derangement of the co-ordinating function which we have in *locomotor ataxy*. And then I have pointed out that Belladonna has nearly all of those apparently incongruous symptoms which characterize the idiopathic disease. In the eye it causes the injected conjunctiva, the dilated, sometimes

\* ‘Science of Therapeutics,’ vol. i.

† ‘Clinical Lectures,’ p. 260.

‡ ‘On the Various Forms of Paralysis’ (Turner).



varying, pupils; the ptosis; the diplopia; and the amaurosis so often observed in ataxy. It has incontinence of urine and tactile anæsthesia, and (according to Brown-Sequard) depression of reflex excitability. Since, moreover, the pathological basis of the symptoms of this disease is in the first instance at least hyperæmic in nature, it would be the truest homœopathy to give Belladonna as a remedy in its early stages. I have had one well-characterized, though incipient case, in which a complete cure has been effected by the 1st dec. dilution of the drug.

Of the true paralytic symptoms 62-68 I can only suggest that they may be secondary to cerebral or spinal congestion (like those of Gelseminum), and point to the loss of power connected with apoplexy and softening of the brain, and to that seen in cerebral fevers and mental disorder. But I cannot find a better place for Hartmann's experience regarding backwardness of walking in children:—"The child, at the time it should begin to walk alone, cannot be brought to use its limbs, notwithstanding all the care taken to teach it, and cannot learn to walk from an apparent weakness of the bones or nerves. In these cases, a single dose of Belladonna produces the most brilliant results, and often effects, in a few days, what the most celebrated baths and strengthening lotions could not in many weeks."

#### PERCEPTION, IDEATION, AND EMOTION.

69. Obtuseness of sense (*Hahn.*).
70. Confusion of the senses: sleepy, yet awake, he imagines he is dreaming (*Moibanus*, in *Hahn.*). [s. 77, 100.]
71. [*His senses deceive him*] (*Ackermann*, in *Hahn.*).
72. My sensations were not blunted, but I misinterpreted them (*Sharpey*).
73. Her heightened but deluded fancy conjures up before her a multitude of beautiful images (*Kr.* in *Hahn.*).
74. He believes he sees things which are not present (*Wiedemann*, in *Hahn.*). [s. 114, 1209.]
75. The delirium was attended with phantasms, and in this respect resembled that caused by alcohol; but the mind did not run on cats, rats, and mice, as in the case of drunkards. Sometimes the phantasms appeared to be in the air, and various attempts were made to catch them or chase them with the hands: at other times they were supposed to be on the bed. One patient (a woman) fancied the sheets were covered with cucumbers (*Hughes*, XIV). [s. 227.]
76. The delirium was of busy, restless, vivid character, but generally rather pleasing than otherwise. The patients appeared to think they were pursuing their ordinary occupations; one boy appeared eager in flying a kite, another pulled tables and chairs about, thinking he was working in a coal-pit; and a woman appeared to be remarkably busy with her household duties. All their movements were of a quick, excited character, strikingly resembling delirium tremens (*Hughes*, XII).
77. He imagines he sees ghosts and various insects (*Moibanus*, in *Hahn.*). [s. 70, 100.]
78. Nothing could rid my eyes of most disgusting spectral cockroaches swarming all over the room (*Anstie*, from gr. 1½ of the extract).
79. At the height of the poisoning, the woman was in a state very closely resembling that so often seen in delirium tremens. Excessive terror was painted on her countenance, and she responded to all questions by pointing with a trembling finger to swarms of unclean beasts, which she fancied were scrambling all over the beds, walls, table, &c., of the wards (*Ibid.*, from gr. v used as a suppository).
80. The symptoms during this period—6-9 hours after—exactly resembled those of delirium tremens. There was incessant rambling, great restlessness, a grasping at imaginary objects, and occasional screaming from fright. The character of the delirium varied; sometimes the child saw objects which frightened him, and the utmost terror was depicted on his countenance, and he clung to his nurse's neck, or threw himself violently in different directions as if to escape them. Later, the delusions were of a more pleasurable kind, imaginary playing with toys, drawing, eating, &c. (*Hughes* I). [s. 543, 954, 1204.]
81. Timorous insanity: he is afraid of an imaginary black dog, of the gallows, &c.—more in the first twelve hours than afterwards (*Hahn.*).
82. [*Delirious talk of dogs, as if they swarmed about him*] (*Hufeland's Journal*, XVI, cited by *Hahn.*).
83. He is beside himself; raves; talks much about dogs; and his arm and face swell (*Munch*, in *Hahn.*).
84. Talks of wolves being in the room; with full pulse (*G-ch*, in *Hahn.*). [s. 88.]
85. Very delirious; and would persist that there were very horrid monsters all over the room staring at her (*Hughes*, X). [s. 373.]
86. Spectral illusions: picking at the bedclothes as if searching for something lost, with confused mutterings. At times, while it seemed to him that he was fully conscious, saw persons at the bedside, and slowly reached out to grasp them, but his hand would pass through the object and no sense of touch tell him there was anything material in the apparition: saw books and newspapers, and tried to grasp these, but they would either recede or the hand would come in contact with them and feel nothing (*Hale*, III). [s. 539.]
87. The spectral illusions continue on the next day. Frequently, through the forenoon, thought that persons in the room spoke to him, and would carry on conversation with these imaginary beings (*Hale*, I). [s. 16.]
88. He imagines he is riding on an ox, or some such thing (*G-ch*, in *Hahn.*). [s. 84.]
89. Lying in bed in the evening it appears to him as if he were floating away with his couch: ten evenings in succession he imagined, immediately after lying down, that he was floating in his bed (*F. H-n.*, in *Hahn.*).
90. It seems to her that her nose is transparent, and a spot on the left side of the head transparent and coloured brown (*Kr.*, in *Hahn.*).
91. He did not know his own relations (*Wierus*, in *Hahn.*).
92. He paid no attention to those about him; in fact, seemed unconscious of their presence; only now and then, when addressed in a loud voice, he stared at the speaker for an instant, like one suddenly aroused from a sound sleep. The face was a little flushed—8 hours after (*Hughes*, XIII). [s. 62, 129.]
93. He sat lost, as one in a dream (*Hbg.*, in *Hahn.*).
94. Insensibility to all external objects (*Christison*, p. 763). [s. 125.]



95. Insensibility, loss of consciousness (*Stf., Vicat, Hasenest, Glimm, Rau, and Eb. Gmelin in Hahn.*).
96. Disinclination to all kinds of mental exertion (*Hbg, in Hahn.*).
97. Lassitude of mind and body (*Hrn, in Hahn.*).
98. Mental weakness (*Wierus, in Hahn.*).
99. [Mental confusion] (*Sicelius, in Hahn.*).
100. Mental confusion, so that he knew not whether he was dreaming or awake (*Moibanus, in Hahn.*). [s. 70, 77.]
101. A moral and physical apathy; the intellect was beclouded in a way which had a resemblance to the stupor in typhus (*Michen.*).
102. At first a slowness of intelligence; ideas and replies are imperfect and indifferent (*Grandi, in Pereira.*).
103. Stupor (Wagner, Ollenroth, Buchave, and Wierus, in Hahn.).
104. Impaired understanding for some weeks (*Rau, in Hahn.*). [s. 95.]
105. Entire disappearance of intelligence (*Sauter and Buchave, in Hahn.*).
106. Diminished memory (*Hahn.*).
107. Very weak memory; he forgets in a moment what he was about to do, and cannot recollect anything (*Ibid.*).
108. His memory for two or three days after was very defective (*Hughes, XIII.*). [s. 92.]
109. Absence of mind: he is apt to do his business wrong, and forgets things which he had just intended to do (*Ws, in Hahn.*).
110. First this occurred to him, and then that: he could not think in an orderly manner, and forgot immediately whatever he thought or read about (*Lr, in Hahn.*).
111. Absent-minded and forgetful. When conversing, after partly finishing a sentence, was often obliged to stop and enquire what he had been saying.  
For several days after he found a difficulty of fixing the attention upon anything for more than a few minutes at a time (*Hale, I and II.*).
112. Lively memory—24 hours after (*Hahn.*).
113. Temporary return of the lost memory (*Greding, V, in Hahn.*).
114. He remembers things long bygone (*Wiedemann, in Hahn.*). [s. 74, 1209.]
115. Delirium (*Horst and others, in Hahn.*).
116. The slight delirium that followed the action of the narcotic was of a strange, yet not unpleasant kind. The intellectual operations at times were very vivid. Thoughts came and went, and ludicrous and fantastic spectacles were always uppermost in my mind. I was conscious that my language and gesticulations were extravagant, yet I had neither power nor will to do otherwise than I did: and, notwithstanding my bodily malaise, my mind was in a state of delightful exhilaration (*Hughes, III.*). [s. 370.]
117. After gr.  $\frac{1}{32}$  of Atropia, instead of sleep there will be a little meddlesome delirium, and he will require attention to prevent him getting out of bed. He will have little or no inclination to sleep, and will probably be busily influenced by pleasing illusions and delusions, meddling with everything in his way, picking at and handling imaginary objects in the air, and accompanying his acts by muttering and smiling, or with loud chattering, interrupted by subdued laughter (*Harley.*).
118. Wildly delirious, but quite fantastic, almost hysterical, laughing, crying, and not at all conscious (*Hughes, VIII.*).
- 123.\* Insanity; they stripped themselves, and, clad only in their shirts, ran out into the streets in broad daylight, gesticulating, dancing, laughing, and uttering and doing many absurd things (*Dillenius, in Hahn.*).
124. Ridiculous gestures; she feels after those about her, now she seats herself, now she acts as if she were washing, or counting money, or as if she were drinking (*Hasenest, in Hahn.*). [s. 95, 553.]
125. A tailor was poisoned with a Belladonna injection, and for 15 hours, though speechless and insensible to external objects, went through all the customary operations of his trade with great vivacity, and moved his lips as if in conversation (*Christison, p. 763.*).
126. Insanity, with various gesticulations (*Hochstetter, in Hahn.*). [s. 171.]
127. He performs foolish, ridiculous tricks—1-8 hours after (*Hahn.*).
128. In walking he lifts his feet as if he must step over things which were lying in his way, like a drunken person (*Hughes, XIII and Sicelius, in Hahn.*).
129. He was restless in the extreme, and would not lie down for an instant; his hands were in constant motion, he seemed as if he were busy moving some light objects. Occasionally he raised his feet alternately some distance from the ground, as one does in ascending stairs. He moved his mouth incessantly, evidently with the idea that he was talking; but the sounds that he uttered were inarticulate, and altogether unintelligible (*Hughes, XIII.*). [s. 62, 92.]
130. Senseless talk (*Buchave and others, in Hahn.*).
131. Her mind was disordered, so that speech did not correspond to thought, nor thought to sense, nor sense to the objects present (*Glimm, in Hahn.*). [s. 429.]
132. She spoke constantly and rapidly, talking nonsense (*Sauter, in Hahn.*). [s. 105, 191.]
133. He talks like a maniac, with staring, protruded eyes (*Buchave, in Hahn.*).
134. After the talkativeness, muteness (*Ibid.*).
135. At one time he utters ridiculous nonsense, at another he talks rationally (*Hahn.*).
136. At times he is delirious, at times he answers rightly when questioned, and bemoans himself (*El. Camerarius, in Hahn.*).
137. The delirium ceases after a meal (*F. H—n, in Hahn.*).
138. Much anxiety; followed in an hour by perspiration (*Henning, in Hahn.*).
139. Anxiety and inquietude (*Eb. Gmelin, in Hahn.*).
140. Great inquietude; she cannot remain seated long in one place; it drives her about (*Kr., in Hahn.*).
141. By day great anxiety; she has no peace anywhere; it seemed to her as if she must flee away (*Hahn.*).
142. In her momentary lucid intervals she complains of intolerable anguish, so that she wishes to die (*Baldinger, in Hahn.*). [s. 185.]
143. In walking in the open air she is overwhelmed with tearful anguish; she is weary of life, and inclines to drown herself (*Hahn.*).
144. [She is so anxious and confused that she fears she is about to die.] (*Timmermann, in Hahn.*)

\* Nos. 119—122 have been accidentally omitted.



145. Very anxious and timorous (*Mkl.*, in *Hahn.*).
146. He starts in affright very readily, especially when any one approaches him (*Rt.*, in *Hahn.*).
147. Timid mistrust (*Hahn.*).
148. For an hour previous the horse had been restless, and now there was a moderate amount of delirium; a touch made the muscles quiver, and he was startled with the least noise, and when startled became very restless for six hours after (*Harley*).
149. Events which he had previously anticipated with pleasure appeared to him in an anxious light; he thought them fearful and dreadful (*Rt.*, in *Hahn.*).
150. Tearful timidity (*Hahn.*).
151. Violent weeping, whimpering, and howling without cause, accompanied with timorousness—usually within 12 hours (*Hahn.*).
152. [Weeping] (*Dumoulin*, in *Hahn.*).
153. At first sad weeping, which then passed over into impatient and vehement howling (with chilliness)—1 hour after (*Hahn.*).
154. Very excited mood; she is readily brought to weep (*Baehr*, in *Hahn.*).
155. Weeping and extreme ill-humour on awaking out of sleep (*Hahn.*).
156. Hourly alternation of weeping and fretful humour (*Ibid.*).
157. Fretfulness; nothing seemed right to him; he was vexed with himself (*F. H—n*, in *Hahn.*).
158. He was fretful about this and that (*Hahn.*).
159. Whining ill-humour about trifles, with headache as if a stone were pressing the forehead (*Ibid.*). [s. 290.]
160. Extremely morose and serious (*Hbg.*, in *Hahn.*).
161. Silent ill humours—8 hours after.  
On the two following days he was in his wonted mood; the day after that, however, his ill-humour returned (*Hrn.*, in *Hahn.*).
162. Want of cheerfulness, ill-humour, inclined to nothing (*Hahn.*).
163. Not inclined to talk; he desires solitude and quiet; every noise and the visits of others are disagreeable to him (*Hrn.*, in *Hahn.*).
164. Apathy; nothing could make an impression on her; after some days there succeeds a very sensitive, fretful mood, in which nothing gives her pleasure (*Hahn.*).
165. Disinclination and indifference to everything; deficient activity of mind and body (*Mkl.*, in *Hahn.*).
166. Extreme indifference for hours; one could have taken her life without affecting her (*Kr.*, in *Hahn.*).
167. Very mirthful mood; he is inclined to sing and whistle (in the evening)—13 hours after (*Ws.*, in *Hahn.*).
168. She laughs a long time with herself (*Greding*, V, in *Hahn.*).
169. Frequent laughter (*Ibid.*).
170. Involuntary, almost loud laughter, without having any laughable thoughts (*Rt.*, in *Hahn.*).
171. Loud laughter (*Glimm*, *Hochstetter*, and others, in *Hahn.*).
172. Constant loud laughter (*Carl*, in *Hahn.*).
173. Great mirthfulness after supper; the vital powers were increased to an extraordinary degree for a quarter of an hour, after which came drowsiness (*Mkl.*, in *Hahn.*).
174. Unrestrained and exuberant mirth, inclined to quarrel without cause, and disposed to laugh in an annoying manner (*Hartung*, in *Hahn.*).
175. Violent quarrelsomeness, which cannot be appeased (*Hahn.*).
176. He is very easily made angry, even about trifles (*Hrn.*, in *Hahn.*).
177. Delirium either continuous or recurring in paroxysms, mirthful at first, but subsequently changing to fury (*Vicat.*, in *Hahn.*).
178. Was generally restless and unmanageable, refusing to answer, to swallow, or to be examined; appeared profoundly intoxicated—1 hour after.  
After 8 hours—insomnia, incoherent quarrelling, loss of memory; continued wakeful and delirious during the night; and hearing and sight were markedly sensitive (*Harley*: from 1½ gr. of *Atrop. sulph.*).
179. Violent delirium—4½ hours after (*Ibid.*).
180. In the evening he was seized with such violent delirium that it required three men to confine him. His face was livid; his eyes injected and protruding, the pupils strongly dilated; the carotid arteries pulsating most violently; a full, hard, and frequent pulse, and loss of power to swallow (*Hughes*, XIX).
181. Fury (*Wierus* and *Schreck*, in *Hahn.*).
182. Raging, violent fury (*Hahn.*).
183. The expression of his countenance was quite maniacal. He was evidently unconscious and very irritable, striking his mother when she took him from the nurse—1 hour after (*Hughes*, I). [s. 59.]
184. She attempted to bite and strike her attendants, broke into fits of laughter, and gnashed her teeth. The head was hot, the face red, the look wild and fierce (*Hughes*, XI, 3). [s. 912.]
185. Such fury (with burning heat of the body, and open, staring, and immovable eyes) that she had to be held constantly, lest she should attack some one; and when thus held, so that she could not move, she spat continually at those about her (*Baldinger*, in *Hahn.*). [s. 712.]
186. Extreme ill-humour after sleep; he bites those around him (*Buchave*, in *Hahn.*).
187. Mania, in which the patient was often very merry, sang and shouted; then again spat and bit (*Elfes*, in *Hahn.*).
188. He bit at whatever came before him (*Münch*, in *Hahn.*).
189. Instead of eating that which he had asked for, he bit the wooden spoon in two, gnawed the plate, and growled and barked like a dog (*Ibid.*).
190. [Inclination to bite those around him, and to tear everything about him to pieces] (*Dumoulin*, in *Hahn.*).
191. She did foolish things, tore her clothes, pulled stones out of the ground and threw them at the passers by.  
Later, she tossed about in her bed in a perfect rage, with blood-red countenance, and full pulse; tearing her night-dress and bed-clothes (*Sauter*, in *Hahn.*). [s. 132.]
192. Fury: she pulled at the hair of the bystanders (*Mardorf*, in *Hahn.*).
193. [Fury, with grinding of teeth and convulsions] (*May*, in *Hahn.*).
194. In his delirium he picked at the bedclothes and threw them off, and sought continually to spring out of bed (*Eb. Gmelin*, in *Hahn.*).



195. Impossible to keep him in bed, and very difficult to prevent his walking about—2 hours after (*Sharpey*).  
 196. In his delirium he threw himself down from a height (*Buchoz*, in *Hahn*).  
 197. She jumped into the water (*Sauter*, in *Hahn*).

*Commentary.*

The action of Belladonna in the mental and moral sphere is one of the most potent it exerts. It is obviously primary. Perception, Ideation, and Emotion are equally affected; and may be dulled to utter (temporary) extinction, or excited to perverse vividness or violence.

S. 69-90 exhibit the sensorial disorder caused by the drug. The perceptions are blunted, confused, or entirely abolished as regards actual objects; while, on the other hand, illusions and hallucinations are multiplied. The visual centres are the most frequent seat of these subjective sensations, so that phantasms abound; but hearing also has its fancies [s. 87; comp. s. 595-6]. Not uncommonly, the phantasms cause terror, as in delirium tremens; to which disease the whole phenomena presented by the patient are comparable [s. 75-80]. S. 85 exhibits visual hallucinations in association with acute cerebral hyperæmia.

With s. 91 we pass into the ideational sphere. Beginning with instances of diminished power of thought and memory, we soon come to their excitement, with more or less perversion. S. 115-125 are juxta-posed to present pictures of the delirium caused by Belladonna. It is quite of a piece with the hyperæsthesia and the disorder of motion we have already studied. The nerves vibrate more rapidly, but less firmly and equably. S. 126-137 illustrate special features of ideational insanity. S. 135-137 show the intermissions often observed in the idiopathic disorder.

In s. 116 and 132 we again have coincident arterial excitement within the cranium.

We come now to the emotional region,—the sphere of affective and moral insanity. S. 138-144 are very characteristic of acute melancholia, even to its suicidal tendencies. S. 145-174 are grouped to illustrate the humours induced by the drug—fearfulness, lachrymoseness, peevishness, apathy, and finally morbid mirthfulness. This last, with Belladonna as with other causes of excitement, soon passes into quarrelling and rage. We have arrived at that exalted perversion of the emotions which we call *mania*. S. 175-197 are so many different pictures or features of this condition. S. 180, 184, 191 connect these symptoms also with excitement of the cerebral circulation.

The conclusion to be drawn from what has been said is this. Belladonna influences the centres of perception, of thought, and of feeling as it does of those of sensibility and of motion. It excites and at the same time perverts their function,—blunting their reaction to real impressions, while quickening in them a feverish automatic activity, spurring them on in a rapid and disordered course until they fail for exhaustion. The kind of action on the brain-substance which these phenomena imply is seen more plainly when active determination of blood supervenes or coexists. It is *inflammatory* in essence: and hence Belladonna corresponds to the inflammatory varieties of delirium and insanity. I do not mean that it is not homœopathic where no cerebral hyperæmia or fever exists: but only that the presence or prospect of these strengthens the indications for its choice.

Belladonna is accordingly best indicated in the sthenic

and congestive delirium of the fevers and exanthemata; in mania-à-potu; in acute maniacal delirium, the *délire aigue* of the French (a case of which, related by Dr. Maudsley, resulted from transfer of erysipelas from the leg to the brain); and in *furor transitorius*. But we should not think of it in the low, muttering delirium of typhus, or in true delirium tremens. Again, in the absence of hyperæmic symptoms, the active and recent character of the mental affection makes for Belladonna. To acute melancholia it seems admirably suited: but not to chronic melancholia, nor to any form of dementia. The alternation of epilepsy and insanity sometimes observed still farther illustrates the action of our drug: and, when present, calls (*cæteris paribus*) for its choice.

SLEEP.

[See also Symptoms 10, 155, 178.]

198. It is only after moderate medicinal doses that we witness soporific effects. After larger doses insomnia and delirium occur (*Harley*).  
 199. He will have little or no inclination to sleep: but instead of this a little moderate delirium—from gr.  $\frac{1}{32}$  (*Ibid.*).  
 200. Sleeplessness (*Hahn*, *Hoyer* in *Hahn*, and *Hughes* XIII).  
 201. Continual but ineffectual efforts to obtain sleep (*Glimm*, in *Hahn*).  
 202. Frequent awaking at night out of sleep, as if he had slept enough—the first night (*Lr*, in *Hahn*).  
 203. Frequent awaking out of sleep, and though he turns now on this side and now on that, still he finds no rest and cannot fall asleep again (*Ibid.*).  
 204. Sleep very light (*Ln*, in *Hahn*).  
 205. Sleep prevented by anguish (*Hahn*).  
 206. Nightly sleeplessness owing to anguish, with drawing pains in all the limbs (*Ibid.*).  
 207. He cannot sleep at night: a fancy that he has some pressing business hinders him from sleeping (*Ibid.*).  
 208. Somnolency, with sometimes a little flushing of the face—from gr.  $\frac{1}{60}$  (*Harley*).  
 209. Giddiness, heaviness, drowsiness, or actual sleep, with great tendency to dreamy delirium, and, in women, slight occasional startings—from gr.  $\frac{1}{48}$  (*Harley*).  
 210. Uncommon drowsiness and dulness of intellect (*Schnoller*).  
 211. Constant cloudiness of the head and drowsiness—4 hours after (*Gss.*, in *Hahn*).  
 212. Continued drowsiness, with desire to stretch the limbs, from 5 to 9 p.m.—11 hours after (*Mkl*, in *Hahn*).  
 213. Towards evening, even at twilight, drowsiness with yawning; but in the morning he feels as if he had not slept enough (*Hahn*).  
 214. Somnolent condition (*Hasenest*, in *Hahn*).  
 215. Drowsiness— $\frac{1}{2}$  hour after (*Hahn*).  
 216. Very deep sleep (*Ibid.*).  
 217. Deep sleep for 24 hours (*Wierus*, in *Hahn*).  
 218. She sleeps much, and if the cough awake her she falls asleep again directly, and yet in the morning she is giddy and tired (*Kr*, in *Hahn*).  
 219. Notable drowsiness immediately on awaking (*Gss.*, in *Hahn*).  
 220. Drowsiness full of inquietude (*Mardorf*, in *Hahn*).  
 221. Frequent yawning (*Eb. Gmelin*, in *Hahn*).



222. Yawning, like that of intoxicated persons (*Mardorf*, in *Hahn*).  
 223. Frequent yawning, as if he had not slept enough—2½ hours after (*Lr.*, in *Hahn*).  
 224. He dreams immediately on falling asleep (*Hahn*).  
 225. Very sound sleep with much dreaming, until towards morning—5 days after (*Hbg.*, in *Hahn*).  
 226. Sleep at night, with dreams which he cannot remember; he fell asleep earlier than usual, and awoke earlier not unrefreshed, but soon relapsed into the lassitude of the limbs continually present at other times (*Gss.*, in *Hahn*). [s. 53.]  
 227. In some of the patients the delirium subsided into a sort of sleep, attended with pleasant dreams which provoked laughter (*Hughes*, XIV). [s. 75.]  
 228. Vivid dreams, which however he could not remember (*Lr.*, in *Hahn*).  
 229. She dreams more than usual, but peacefully and about household affairs (*Stf.*, in *Hahn*).  
 230. Frightful dreams, vividly remembered (*Hahn*).  
 231. Sleep intolerable on account of greatly increased pains and frightful dreams (*Ibid*).  
 232. Sleep disturbed by miserable phantoms (*Hughes*, X). [s. 373.]  
 233. Sleep full of dreams: she was occupied with a great number of people; she wished to get away, but could not (*Kr.*, in *Hahn*).  
 234. At night very stupefied sleep, anxious dreams about murderers and street robbers; he heard himself shouting loudly once, but did not thereupon come to his senses (*Mkl.*, in *Hahn*).  
 235. She started as in affright, in otherwise quiet sleep, feeling as if she were falling deep down, which caused her to shudder violently (*Stf.*, in *Hahn*).  
 236. He starts up as in affright and awakes (*Hbg.*, in *Hahn*).  
 237. Fright in dreaming, in consequence of which he awakes with sweat on the forehead and at the pit of the stomach (*Hahn*).  
 238. He dreams of danger from fire and awakes in consequence (*Ibid*).  
 239. [*He is constantly awakened out of sleep by fearful dreams and convulsions*] (*Ziegler*, in *Hahn*).  
 240. He had every night dreams which much fatigued his mind, and was prostrated in the morning, when he ought to have got up (*Rt.*, in *Hahn*).  
 241. Uneasy sleep before midnight; the child tosses about, kicks and quarrels in its sleep (*Hahn*).  
 242. Singing and loud talking in sleep (*Ibid*).  
 243. Croaking and moaning in sleep (*Ibid*).  
 244. Intermittent breathing in the night, in sleeping and waking: inspiration and expiration together last only half as long as the pause before the next inspiration; expiration occurred by fits and starts, and was louder than inspiration: inspiration lasted only a little longer than expiration (*Ibid*).  
 245. During his stupefied sleep he opens his eyes, looks about him wildly, and relapses into stertorous slumber (*Baldinger*, in *Hahn*).  
 246. He starts as in affright and awakes, when he is just falling asleep (*Hahn*).  
 247. In the evening frequent starting as in affright when just on the point of falling asleep; the feet were jerked upwards and the head forwards (*Ws.*, in *Hahn*).

248. She awakes in the night full of fright and fear, it appeared to her as if there was something under the bed which made a noise; she felt dry heat on awaking (*Hahn*).  
 249. Headache and great lassitude on awaking (*Ibid*).  
 250. In the morning he is unable to rouse himself from sleep: on awaking he is very much out of humour (*Ws.*, in *Hahn*).

#### Commentary.

There is not much to be said in regard of the Sleep symptoms of one drug. It is obvious that the excitement of the brain which causes delirium should also produce insomnia. Somnolence is a symptom of the less intense action of the drug; it is of hyperæmic nature (s. 208). Both these are primary: but there is a secondary somnolence in the sopor which succeeds the delirium, and sometimes a secondary sleeplessness for some nights after the shock to the brain. Disturbed sleep, as in 224–243, is more characteristic of Belladonna than either insomnia or sleepiness. The dreaming is really (in many instances) delirium during sleep: it is rarely of a pleasant nature, and often causes waking in fright. These symptoms point strongly to Belladonna as homœopathically indicated in the premonitory and incipient stages of cerebral disease in children, and in sleeplessness from dentition.

#### HEAD.

##### I. INTERNAL HEAD.

[See also Sympt. 10, 33, 34, 43.]

251. Vertigo (*Sicelius* and four others, in *Hahn*).  
 252. The first effect was vertigo, increasing to such an extent as to render it impossible to walk without staggering (*Hughes*, III). [s. 370, 520.]  
 253. Attacks of vertigo, with dulness of sense, lasting a few minutes—12 hours after (*Hahn*).  
 254. Vertigo: it appears to him as if objects around him swayed to and fro (*Ws.*, in *Hahn*).  
 255. Immediately after, vertigo and dimness of vision, recurring three days afterwards at the same hour (*Teste*. See s. 286a).  
 256. Turning round in the head, vertigo with nausea, as after turning quickly in a circle, or as on waking from the morning sleep after a night of revelling (*Hbg.*, in *Hahn*).  
 257. Turning in the head, and at the same time a similar turning in the scrobiculus cordis; after rising up it became so bad in walking, that she could no longer distinguish anything; everything vanished from before her eyes (*Kr.*, in *Hahn*).  
 258. Vertigo, as if everything turned in a circle—1 hour after (*Hrn.*, in *Hahn*).  
 259. Sense of dulness and turning in the head; she felt better in the open air, worse in a room—¼ hour after (*Stf.*, in *Hahn*).  
 260. Attacks of vertigo during rest and motion (*Gss.*, in *Hahn*).  
 261. Vertigo increased on any movement of the body (*Schneller*).  
 262. A vertigo-like sensation of reeling in the whole head while sitting (*Htn.*, in *Hahn*).  
 263. Vertigo, and trembling of the hands, so that they could not perform any work with them (*Baldinger*, in *Hahn*).



264. He reeled in walking, held on by the wall, complained of anxiety and vertigo, and often talked irrationally like one intoxicated (*Ibid.*).
265. On rising in the morning she staggered about as if drunk (*Greding*, XIV, and *de Launay d'Hermont*, in *Hahn.*).
266. Vertiginous reeling (*Mardorf* and two others in *Hahn.*).
267. [*He walked round and round in a circle*] (one of *Orfila's* dogs, and *de S. Martin*, in *Hahn.*).
268. He attempted to get out of bed with a reeling, drunken motion; his speech was thick and indistinct (*Hughes*, XV).
269. Intoxication (*Hahn.*).
270. As if drunk immediately after a meal (*Ibid.*).
271. Intoxication immediately after drinking the least quantity of beer (*Ibid.*).
272. At first merely sluggishness of the mind, then dizziness and a condition resembling commencing intoxication (*Lusanna*, in *Hughes*).
273. Was generally restless and unmanageable, refusing to answer, or to swallow, or to be examined; appeared profoundly intoxicated—1 hour after (*Harley*).
274. Cloudiness as if intoxicated (*Rt.*, and three others in *Hahn.*).
275. Cloudiness of the head as though from much brandy and tobacco (*Hbg.*, in *Hahn.*).
276. Cloudiness of the head with intoxication, as from drinking wine immoderately, with swollen, red face (*Albrecht*, in *Hahn.*).
277. Cloudiness of the head, with swelling of the glands in the nape of the neck (*Hahn.*).
278. Cloudiness in the forehead, as if an oppressive cloud moved to and fro, especially under the frontal bone (*Gss.*, in *Hahn.*).
279. The whole head is muddled for many days (*Stf.*, in *Hahn.*).
280. Head confused, with pain in forehead (*Schneller*). [s. 210.]
281. CONFUSION OF THE HEAD, aggravated by movement (*Hrn.*, in *Hahn.*).
282. He feels his whole head heavy, as if from intoxication (*Stf.*, in *Hahn.*).
283. A weight at the top of the forehead, which causes vertigo, and a sense as if intoxicated—14 days after (*Hahn.*).
284. In stooping, the blood mounts to the head, which becomes heavy as if giddy (*Ibid.*).
285. His whole head feels so heavy that he seems about to fall asleep; he is not disposed to do anything (*Ibid.*).
286. Weight in the head as if he would fall (*Ln.*, in *Hahn.*).
- 286a. Weight on the head, with dull shootings—14 hours after (*Teste*, Brit. Journ. of Hom., xxvi, 143. Girls poisoned by decoction of leaves).
287. Weariness of the head, inability to raise the head after stooping (*Hempel*, vol. I, p. 396).
288. Pressure deep in the brain over the whole head, during and after walking in the open air (*Hahn.*).
289. Headache above the eyes only, with weight in the head early on awaking: when touching the eye, he feels pain (*Ibid.*).
290. Headache as if a stone were pressing the forehead, relieved by laying the head down, and stooping, with dilated pupils and whining ill-humour about trifles—3 hours after (*Ibid.*).
291. Headache, as if the brain would be pressed out, in the forehead, just above the orbits, which prevents the eyes being opened and obliges him to lie down, with excessive contraction of the pupils and very weak voice—5-24 hours after (*Ibid.*).
292. Fulness and pressure at temples and forehead, with very slight pain, making him restless and uneasy (*Hale*, I).
293. Dull pain in the temples, coming on at intervals of perhaps a quarter of an hour, and lasting a few minutes. This pain is not severe, but seems like a dull heavy pressure; at other times it is a steady tension in the anterior cerebral region, as if the brain was being pressed outwards in all directions (*Ibid.*).
294. PRESSIVE HEADACHE ESPECIALLY IN THE FOREHEAD—2 days after (*Hrn.*, in *Hahn.*).
295. Painful pressive feeling in the head, especially in the lower part of the forehead directly above the nose, intolerable on stepping or treading (*Rt.*, in *Hahn.*).
296. Early in the morning, headache, as if something in the forehead, over the eyebrows, sank down and hindered the opening of the eyes—4 hours after (*Lr.*, in *Hahn.*).
297. Headache above the orbits, as if the brain were compressed, so that he was obliged to close the eyes (*Hbg.*, in *Hahn.*).
298. Violent headache, and feeling of pressure in the eyes, which were much injected (*Hörling*).
299. Pain in the head and eyeballs, which felt as if starting from their sockets (*Hughes*, XII).
300. Pressive pain below the right frontal eminence, which soon occupies the entire forehead—10 minutes after. It decreases at intervals, but only to return with greater violence (*Gss.*, in *Hahn.*).
301. Pressive pain under the frontal eminences, soon after awaking, on rising (*Ibid.*).
302. Violent pressive pain in the left frontal eminence from within outwards (*Htn.*, in *Hahn.*).
303. Violent pressure from within outwards in the whole left half of the brain, especially violent in the forehead—2½ hours after (*Ibid.*).
304. Violent pressure in the left temple from without inwards, which spreads itself over the entire anterior half of the brain on that side when the head is supported by the hand—¾ hour after (*Ibid.*).
305. Pressive pain in the right temporal region, which on supporting the head with the hand increases to a sense of bursting, and extends into the right frontal eminence—8 hours after (*Ibid.*).
306. PRESSIVE PAIN IN THE FOREHEAD, SO SEVERE DURING MOTION THAT IT CAUSED HIM TO CLOSE HIS EYES, easier in sitting; he was obliged to lie down, upon which it disappeared; it returned immediately on rising, for two days, and was not aggravated by eating or drinking; but as soon as he went into the open air the forehead seemed to be pressed in as if a heavy stone lay on it; on the third day the pain disappeared entirely, while he was sitting in the room (*Hbg.*, in *Hahn.*).
307. INCESSANT DULL, PRESSIVE PAIN ON ONE OR OTHER SIDE OF THE HEAD—5-24 hours after (*Hahn.*).



308. Pressing in the right vertex, shifting to the left and then back again to the right (*Mkl.*, in *Hahn.*).
309. Sensation of weight, with violent pressing, in the occiput—2½ hours after (*Htn.*, in *Hahn.*).
310. PRESSURE IN THE HEAD NOW HERE, NOW THERE, WHICH OCCUPIES EACH TIME LARGE AREAS (*Hrn.*, in *Hahn.*).
311. Tensive pressure in the right side of the forehead (*Ibid.*).
312. TENSIVE PRESSURE IN THE LEFT VERTEX AND IN THE FOREHEAD—24 hours after (*Ibid.*).
313. Headache, as if the head were screwed together on both sides and thereby rendered narrower (*Bachr.*, in *Hahn.*).
314. Continuous distension of the whole brain (*Ln.*, in *Hahn.*).
315. Violent pressing in the whole head from within outwards, as if it would burst—3 hours after (*Htn.*, in *Hahn.*).
316. Headache as if the sutures of the skull were being torn open, and as if a lever were being applied whereby the head was forced asunder (*Ln.*, in *Hahn.*).
317. A pressive feeling of weight from the centre of the brain towards the temples, with diminution of hearing in both ears (*Mkl.*, in *Hahn.*).
318. Pain in stooping forwards as if everything would issue at the forehead (*Stf.*, in *Hahn.*).
319. Sensation as if the brain pressed towards the forehead, which disappeared directly on bending the head a little backwards—1½ hours after (*Htn.*, in *Hahn.*).
320. In the open air the sensation of bursting in the head is very violent, and he is afraid to cough on account of the increase of pain it causes (*Ibid.*).
321. Violent headache—in several cases (*Greding.*, in *Hahn.*).
322. Violent pain in the head, vertigo, pains in back and nausea (*Trousseau and Pidoux*; from inhaling *Atropia*).
323. Complaints of intense pain in the head, and says that it feels enormously large (*Hughes*, X). [s. 373.]
324. HE WAS FREQUENTLY OBLIGED TO STAND STILL IN WALKING FROM THE VIOLENCE OF THE PAIN IN THE FOREHEAD; AT EVERY STEP IT SEEMED AS IF THE BRAIN ROSE AND FELL IN THE FOREHEAD; THE PAIN WAS AMELIORATED BY PRESSING STRONGLY ON THE PART—6 days after (*Hbg.*, in *Hahn.*).
325. Incessant drawing and expansive pain in the head, as if something in it rocked or swayed in a jerking manner (*Hahn.*).
326. Strong pulsation of the blood-vessels in the forehead, and pain as if the bones were lifted up (*Hbg.*, in *Hahn.*).
327. Throbbing pressure in the left side of the occiput—5 hours after (*Htn.*, in *Hahn.*).
328. VIOLENT THROBBING IN THE BRAIN FROM BEHIND FORWARDS AND TOWARDS BOTH SIDES; THE THROBBING ENDS ON THE SURFACE IN PAINFUL SHOOTINGS (*Ws.*, in *Hahn.*).
329. Sharp shootings in both frontal eminences from within outwards—2 hours after (*Ibid.*).
330. Dull shooting in the left temple from within outwards (*Ibid.*).
331. Painful shooting in the whole head, especially in the forehead (*Stf.*, in *Hahn.*).
332. Violent shooting pain in the right temple for a quarter of an hour—25 hours after (*Ibid.*).
333. Severe shooting in the right frontal eminence, increased by bending forwards, ameliorated by pressure—5 minutes after (*Ibid.*).
334. In the evening, some severe stabs in the occiput, immediately behind the ear, rapid as lightning, so that he could have cried out—6 days after (*Hahn.*).
335. Some dull shoots in the left side of the occiput (*Ln.*, in *Hahn.*).
336. Terrible headache made up of dull or pressive shootings, which dart through the brain from all sides (*Hahn.*).
337. Stabbing through the head, as if with a double-edged knife, in the evening (*Kr.*, in *Hahn.*).
338. Stabbings in the right side of the head, as if with a two-edged knife, which next are felt in the front of the head, then in the vertex, then in the occiput, so that she cannot lie on either side (*Ibid.*).
339. Stabbing as if with a knife from one temple to the other (*Bachr.*, in *Hahn.*).
340. Three violent severe stabs through the head from the forehead to the occiput, whereupon all previous headache suddenly disappears (*Stf.*, in *Hahn.*).
341. Pressive shootings in the temples from within outwards (*Ws.*, in *Hahn.*).
342. Cutting pressure in the temples from within outwards, which increases in violence, spreads through the brain, and there passes into a strong throbbing, constant in all positions (*Ibid.*).
343. Drawing pressive headache (*Hbg.*, in *Hahn.*).
344. Drawing in the head towards the forehead, as if the brain would dilate (*Ln.*, in *Hahn.*).
345. JERKING HEADACHE, WHICH BECOMES EXTREMELY VIOLENT ON WALKING QUICKLY OR ON GOING RAPIDLY UPSTAIRS, AND WHERE AT EVERY STEP THERE IS A JOLT DOWNWARDS, AS IF A WEIGHT WERE IN THE OCCIPUT—48 hours after (*Ws.*, in *Hahn.*).
346. Boring and pressing headache during the day in different places, in the evening shooting (*Kr.*, in *Hahn.*).
347. Boring pain under the right frontal eminence early in the morning soon after awaking (*Gss.*, in *Hahn.*).
348. Tearing pressure here and there in the head, especially in the forehead and temporal region (*Hrn.*, in *Hahn.*).
349. Tearing pressure in the right temple, and in the vertex, which extends in various directions (*Ibid.*).
350. Cutting tearing pain in the head, which moves about from one part to another (*Ibid.*).
351. Tearing shootings in the head over the right orbit (*Ibid.*).
352. Burning tearing pain in the right frontal eminence—4 hours after (*Htn.*, in *Hahn.*).
353. Fine shooting burning pain in the left frontal eminence—¼ hour after (*Ibid.*).
354. Tearing pain in the right vertex, increased by movement (*Ibid.*).
355. Tearing in the forehead (*Hbg.*, in *Hahn.*).
356. Violent pains of a tearing character in the anterior part of the head (*Gss.*, in *Hahn.*).
357. Headache in the vertex, a kind of twisting, sometimes also digging, sometimes tearing; the pain became much more violent on external pressure; the skull



- seemed to be quite thin, as if it could be pressed through (*Kr.*, in *Hahn.*).
358. A cutting pain in the head to the left of the occipital protuberance (*Gss.*, in *Hahn.*).
359. Headache, as if the brain were numb (*Hahn.*).
360. Dull pain in the forehead, with dizziness on moving suddenly (*Hale*, I).
361. Dull frontal headache on the left side (*Schneller*). [s. 261.]
362. Dull bruised feeling in the temples, but no headache (*Hale*, II).
363. Headache occurred in but one case (*Lusanna*, in *Hughes*).
364. During the headache, disappearance of the thoughts; she forgets what she had just thought and cannot recollect herself (*Baehr*, in *Hahn.*).
365. Headache with transient blindness (*Greding*, xvii, in *Hahn.*).
366. Headache and weariness—the face red (*Hughes*, XI. 1).
367. Burning in head, palate, and fauces; feet ice-cold (*Schneller*).
368. Fulness in the forehead, and head hot; but at no time any throbbing of the carotids or arteries of the head (*Hale*, I).
369. Throbbing in the temporal regions, with slight pain: head hot, pulse 130—after  $\frac{1}{2}$  hour (*Ibid.*, II).
370. The feeling in the head was that of violent congestion, a full, tense, and throbbing state of the cerebral vessels, identically the same sensation as would be produced by a ligature thrown around the neck, and impeding the return of the venous circulation (*Hughes*, III). [s. 414.]
371. Ebullition of blood towards the head, without internal heat of the head; when he leant the head backwards it appeared to him as if the blood rushed into it (*Hbg.*, in *Hahn.*).
372. Heat in the head, externally perceptible— $\frac{1}{4}$  hour after (*Stf.*, in *Hahn.*).
373. She complained first of “a sensation of madness in her brain,” then suddenly lost the power of speaking and swallowing, and fell into a comatose state. The head was bent forward on the chest, eyes closed, breathing heavy and stertorous, pupils widely dilated; hands and feet cold; pulse scarcely perceptible; jaws firmly fixed. After rousing, appeared conscious when spoken to, but could not answer. Soporose throughout the day,—speech gradually returning.
- 2nd day. Has passed a restless night, sleep being much disturbed by frightful dreams; complains of intense pain in the head, and says that it feels enormously large; great intolerance of light and noise. At noon very delirious, and would persist that there were very horrid monsters all over the room staring at her.
- 3rd day. Head much relieved after leeching. Passed a restless night, her sleep, she says, being disturbed by “miserable phantoms.” From this point gradual amendment took place (*Hughes*, X).
374. During the succeeding night he was morbidly sensitive to sounds and objects, with symptoms akin to the early stage of meningitis. Pulse in the morning 108, furred tongue, and hot, dry skin (*Leach*, ‘Med. Times,’ July 8, 1865. From *Atropia*).
375. They lay in a soporose condition, with violent convulsions of the extremities: the head was very hot, the face red, the eyes protruding (*Hughes*, XI. Two boys). [s. 33.]
376. One hour after he had lost the power of articulation, and presented the general appearance of a person seized with slight paralysis. He was quite unable to stand or walk, and his limbs were in a state of tremor and agitation. He became cold, and nearly approaching a state of insensibility; the eyes had a wild, vacant appearance; the respiration was laborious, and occasionally stertorous.
- After three hours more the temperature of the body had increased, face swollen, and insensibility more complete. No active delirium was manifested, but from the general appearance of the eye and features, no doubt that peculiar derangement existed, subdued partially by the pressure on the cerebral organ, so as more nearly to approach the character of apoplexy.
- He died 17 hours after taking the poison. The post-mortem examination showed the presence of great congestion of the brain, particularly at the base, and of the medulla oblongata, together with considerable (serous?) effusion (*Ibid.*, XVI). [s. 416.]
377. [Quite profound somnolency, with subsultus tendinum, pale cold face and cold hands, and hard small, rapid pulse] (*May*, in *Hahn.*).
378. A sort of coma, with small, weak, unequal pulse (*Boucher*, in *Hahn.*).
379. Sopor, coma, or lethargy usually follows the delirium; and sometimes the delirium returns as the sopor goes off (*Christison*, p. 764).
380. A shepherd died comatose 12 hours after eating the berries. At the autopsy the blood-vessels of the head were gorged (*Ibid.*, p. 766).
381. Excessive congestion within the head—*post mortem* (*Christison*, in birds; and *Orfila*, in dogs).
382. The membranes of the brain dry, and the ventricles devoid of serosity (*Orfila*, in dogs).
383. Lethargic, apoplectic condition: for a day and night they lay without any motion of the limbs; if pinched by the bystanders, they opened their eyes, but uttered no sound (*Wagner*, in *Hahn.*).
384. Entire insensibility, stiffness of the lower limbs, extreme distension of the superficial blood-vessels, with strangely red, swollen countenance, very full and rapid pulse, and excessive sweat (*Baldinger*, in *Hahn.*).
- 384a. A kind of cerebral apoplexy seized one of them, causing her to fall down insensible. (*Teste*, loc. cit.) [s. 286a, 255.]
385. Feeling in the brain like the swashing of water (*Bucholz*, in *Hahn.*). [s. 532.]
386. Cold sensation in the brain, at the middle of the forehead (*Hahn.*).

## 2. EXTERNAL HEAD.

### Sensations.

387. The head externally is so sensitive that the least contact, even the pressure of the hair, gives her pain (*Kr.*, in *Hahn.*).
388. Pain externally in the whole head, resembling that which remains in the integument after strong tugging and pulling at the hair (*Rt.*, in *Hahn.*).



389. Pain in the ears and temples as if they were being alternately torn out and pressed in, alternating with a similar pain in the orbits (*Gss.*, in *Hahn.*).  
 390. Tearing in the forehead externally (*Hahn.*).  
 391. A drawing down in the temples and in the right orbit (*Hahn.*).  
 392. Drawing pain in the frontal bone and in the nape of the neck, both when at rest and during motion (*Gss.*, in *Hahn.*).  
 393. Drawing pain in the right side of the head and at the same time in the right arm, when at rest after dinner (*Hbg.*, in *Hahn.*).  
 394. Gnawing pain externally in the frontal eminences (*Ws.*, in *Hahn.*).  
 395. Crampy pain, passing off rapidly, in the right side of the vertex—11 hours after (*Ibid.*).  
 396. Cramp at the root of the nose (*Ibid.*).  
 397. Violent crampy pain in the frontal eminence, which extends down over the zygoma to the lower jaw (*Ibid.*).  
 398. A sensation externally as of contraction of the muscles of the forehead and eyes (*Ln.*, in *Hahn.*).

#### Appearances.

399. Her head is drawn backwards: she bores deep into the pillow at night (*Baehr*, in *Hahn.*).  
 400. The hair of the head, which was previously idio-electric, is so no longer—24 hours after (*Hahn.*).  
 401. Swelling of the head (*Kr.*, *Münch.*, and *Horst* in *Hahn.*).  
 402. Great swelling of the head and redness over the whole body—in two boys (*Münch.*, in *Hahn.*).

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#### Commentary.

The Head symptoms of Belladonna begin with vertigo (s. 251-268), (which is indeed a sort of hallucination or delirium of the motor centres). It is worse on movement, and relieved in the open air. It is often associated with symptoms of hyperæmia within the cranium, as in s. 252; and in Harley's experiments its development seemed to coincide with the rise of the pulse. Such congestive vertigo, when occurring in subjects not too advanced in life, yields readily to this drug.

The vertigo of Belladonna closely resembles that caused by alcohol; and the whole group of cerebral symptoms induced by the drug is not uncommonly compared to intoxication (s. 264-273). Of the same character are the cloudiness, confusion, dulness, and heaviness of s. 274-285. The tendency to hyperæmia is ever and anon manifesting itself along this series of phenomena (s. 268, 276, 284). The resemblance of the disorder of perception caused by Belladonna to that of delirium tremens has already come before us, and its homœopathicity to acute alcoholism, when of an active character, is now complete.

With s. 288 we come to the *headache* of Belladonna, of which we have no less than seventy-eight instances in our poisonings and provings. It is, accordingly, always the first medicine to be thought of in the treatment of headache; and only when it is obviously unsuited, or fails on trial, must resort be had to other medicines. There are few varieties of the affection which do not appear in its pathogenesis. S. 288-313 show it causing localised pressure, either from within outwards, or from without inwards. In s. 314-328 we see that expansive, bursting, throbbing distress which results from active congestion. From s. 329-340 the pain consists of shoots and stabs. We have "pressive shooting" in s. 341, "cutting pressure" in s. 342, "drawing pressure" in s. 343, "drawing" in s. 343-4, "jerking" in s. 345, "boring" in s. 346-7,



"tearing pressure" in s. 348-9, "cutting tearing" in s. 350, "tearing shooting" in s. 351, "burning tearing" in s. 352, "burning shooting" in s. 353, "tearing" simply in s. 354-356, "twisting," "digging," and "tearing" in s. 357, "cutting" in s. 358. The 'Index of Regions' shows that the most frequent seat of these sensations is the forehead and the temples. Belladonna is thus equally suited to the nervous or neuralgic headache, and to the congestive. Symptoms of local hyperæmia (as a bloodshot eye) characterise the hemicrania which calls for it. Heavy, drooping eyelids, and blindness or flashes of light before the eyes, point to it; also a sense of burning in the eyeballs. Secondary vomiting does not contra-indicate it, but in true gastric headache it is of no use. The Belladonna headache is always aggravated by light, noise, and movement. Its essential characters, indeed, are hyperæsthesia and hyperæmia.

From s. 366 onwards the phenomena are those of acute cerebral congestion and determination of blood. In s. 373-4 there is a near approach to phrenitis; s. 375 reminds of eclampsia; s. 376-380 (in two of which instances death ended the scene) are apoplectic. In all these affections, as well as in simple cerebral hyperæmia, Belladonna ranks among our chief remedies; but I agree with Dr. Bähr that its action does not reach to meningitis. The cerebral complication of fever, especially in its enteric form, is sometimes sufficiently active for Belladonna. Dr. Hempel speaks much of its value in what he calls "cerebral typhus."

In these actions on the brain and its circulation, Belladonna should be compared with—1. Stramonium and Hyoscyamus; 2. Glonoine and Nitrite of Amyl; 3. Nuxvomica, Bryonia, and Sulphur.

In leaving now the sphere of the Nervous System, I cannot but point out how entirely all these observations support the doctrine of the school of Hahnemann, that Belladonna is no mere "narcotic," but a true irritant of the nervous centres. Dr. Harley probably means the same thing when he concludes his analysis by suggesting that "the whole of the phenomena may be attributed to excessive stimulation of the nerve-centres attended by increased oxidation," and that "hyper-oxidation of nerve-tissue" is the essential action of the drug.

## FACE.

### I. APPEARANCES.

[See also Sympt. 9, 27, 33, 83, 180, 184, 276, 366, 376, 384.]

403. Unwonted redness of the face (*Ln.*, in *Hahn.*).
404. Flushed face, with burning— $\frac{1}{2}$  hour after (*Hale*, III).
405. His face was at this time flushed, and mottled with white—1 hour after (*Hughes*, I). [s. 183, 465.]
406. Head and redness of the head only (*Hahn.*).
407. Great redness and heat in the face, without sweat—from 24 to 30 hours after (*Mkl.*, in *Hahn.*).
408. Very red, hot face, with icy coldness of the limbs (*Stf.*, in *Hahn.*).
409. Glowing redness in the face, with violent inexpressible pains in the head (*Ibid.*).
410. Determination of blood to the head, red cheeks (*Buchave*, in *Hahn.*).
411. The face is very much swollen and hot (*Ibid.*).

412. Face red and hot, and face, neck, and chest much swollen (*Höring*).
413. On the face such an increase of heat that it actually glowed, became brownish-red and turgid (*Schneller*).
414. The face was red and turgid (*Hughes*, III). [s. 370, 461.]
415. Face full and flushed. Amendment was indicated by a diminution of heat and fulness of face, and by returning consciousness (*Hughes*, IV).
416. His face was so much swollen and red as quite to change his usual appearance. His daughter remarked that the wrinkles of old age had disappeared, and he seemed much fatter than usual (*Hughes*, XVI). [s. 376.]
417. Scarlet redness of the face and chest during sleep (*Schäffer*, in *Hahn.*).
418. Dark red spots on the face, resembling those of scarlet fever, with full pulse (*Wiedemann*, in *Hahn.*).
419. There appeared on the face, especially on the left cheek, along with increased heat, red, irregular patches of the size of a crown-piece, which disappeared and again returned (*Schneller*).
420. During a sudden rigor great cloudiness of the head and sight, red eyes, and swollen face, which is covered with very small, irregularly-shaped, dark-red spots, especially on the forehead (*Greding*, XIX, in *Hahn.*).
421. On the skin of the face a slight pimply exanthema broke out, which supplicated slowly and dried up in a few days (*Schneller*).
422. Small red, painless pustules appear on the temple, at the right corner of the mouth and on the chin; when scratched, bloody serum exudes—13 hours after (*Lr.*, in *Hahn.*).
423. PUSTULES BREAK OUT ON THE CHEEK AND NOSE, WHICH RAPIDLY FILL WITH PUS AND BECOME COVERED WITH A CRUST (*Hahn.*).
424. On awaking in the morning, a small bluish-red spot on the left cheek, which gradually increases in size, until the bluish-red swelling occupies the whole cheek, with burning and shooting in the part which is red, and boring and throbbing in the whole cheek, excessively aggravated by movement; after some days the other cheek swelled, and the swelling lasted 8 days (*Kr.*, in *Hahn.*).
425. Swelling of the left cheek near the nose and eye, which came on in the night, increased the next day, with heat, and lasted 5 days (*Greding*, XIII, in *Hahn.*).
426. Hard large swelling in the face near the nose and eye, with swelling also of the parotid gland on the opposite side, of five days' duration (*Ibid.*).
427. Swelling of the cheek with burning pain (*F. H—n*, in *Hahn.*).
428. Swollen face (*Hahn.*, and *Münch.* in *Hahn.*).
429. The face was red and swollen, but the rest of the body pale (*Glimm*, in *Hahn.*). [s. 131.]
430. Tumefaction and redness of the face and lips (*Hughes*, IX). [s. 27.]

### 2. SENSATIONS.

[See also Sympt. 15, 16, 41, 397, 578.]

431. Heat in the face the whole day, as if wine had driven the blood to the head—12 hours after (*Hahn.*).



432. Sensation of heat in the face without external redness (*Ws.*, in *Hahn.*).  
 433. Sensation of burning heat in the whole face, without redness of cheeks or thirst, with moderately warm body and cold feet—4 hours after (*Htn.*, in *Hahn.*).  
 434. Sensation of creeping heat in the face under the skin— $\frac{1}{2}$  hour after (*Ws.*, in *Hahn.*).  
 435. Burning heat over the face, without thirst—10 hours after (*Lr.*, in *Hahn.*).  
 436. It appeared to him as if his face had become swollen—3 hours after (*Hughes*, XV). [s. 446.]  
 437. Scraping itching of the forehead—1 hour after (*Ws.*, in *Hahn.*).  
 438. Neuralgic pains commencing under the left orbit and running back to the ear, lasting perhaps ten minutes at a time, and then disappearing for fifteen or twenty (*Hale*, II).  
 439. Pinching pressure on the left zygoma (*Ws.*, in *Hahn.*).  
 440. A tearing and drawing below the right zygoma— $\frac{1}{2}$  hour after (*Gss.*, in *Hahn.*).  
 441. Pressing below the right zygoma (*Ibid.*).  
 442. Numbness of the face (*Pereira*).  
 443. Spasmodic action of the muscles of the face (*Hempel*, p. 341).

#### Commentary.

The characteristic Belladonna face is the red and swollen one seen in s. 403-416, 428-430. It is symptomatic of the state of the brain,—of simple determination of blood in s. 403-410, of acute congestion even to apoplexy in s. 411-416. In this connexion its physiological interpretation and practical applicability have already come before us. S. 417-430 are of another order. They show that the face itself may be affected by the drug, independently of the brain or of any other part. S. 417-419 are scarlatinoid, s. 420 erythemoid, s. 421-423 resemble the simpler forms of acne. But s. 424-427 speak plainly of true dermatitis,—of that condition which, when occurring idiopathically, we call furuncle, carbuncle, or *erysipelas*. The value of Belladonna in these maladies is well known. Erysipelas it hardly ever fails to arrest: it is only when vesicles form (*E. phlyctenodes*) that Rhus is of superior efficacy.

The subjective symptoms of the face are mostly (s. 431-436) complementary to the morbid appearances. The "without thirst" of s. 433 and 435 is worth noting: it might prove decisive when the choice lay between Belladonna and Aconite. S. 438 is the only instance of the occurrence pathogenetically of that *prosopalgia* in which Belladonna is often so fine a remedy. It would be too slight a basis, perhaps, on which to rest the argument for its homœopathicity. But we may go farther. Dr. Anstie has argued (mainly on the ground of the numerous complications so often present in severe cases—spasms, paralyses, inflammations, disorders of nutrition, secretion, and sensation) that true neuralgia is always of central origin. The particular seat of it he thinks is the posterior root of the spinal nerve in which the pain is felt. I have argued (*Brit. Journ. of Hom.*, vol. xxx, p. 368) that it is rather to the grey nucleus that we should look than to the issuing fibres. I have also shown that the analogy of locomotor ataxy, whose pains Dr. Anstie maintains to be truly neuralgic, suggests that the central mischief is primarily at least of an inflammatory nature. If these things are so, we have no difficulty in understanding how Belladonna cures neuralgia homœopathically. The essence of the disorder is that very

irritation of the nerve centres which we have seen it causing.

The neuralgia which indicates Belladonna is of comparatively recent origin, and occurs in young or middle-aged persons. It is associated with marked symptoms of hyperæmia. It is usually situated in the trigeminus,—the drug having little influence over sciatica or other neuralgia occurring below the head and neck.

#### EYES.

[See also Sympt. 180, 185, 289, 296, 298, 299, 365, 391, 398.]

#### LIDS.

##### 1. Appearances.

444. The palpebræ of the left eye were puffy, and redder than those parts on the right side; and the upper left lid was prolapsed, as in ptosis (*Hughes*, IV). [s. 415.]  
 445. Vision is not present in the left eye, the lid of which is drooping, inflamed, and very painful when touched (*Hughes*, VI).  
 446. Both eyelids tumid (*Hughes*, XV). [s. 436.]  
 447. Tarsal edges of lids injected (*Schneller*).  
 448. Eyelids feel sore; are red and congested (*Hale*, II). [s. 451.]  
 449. Throbbing pain in the lower eyelid, towards the inner canthus, with great inflammatory swelling at that point, and much lachrymation, for half an hour—32 hours after (*Mkl.*, in *Hahn.*).  
 450. In the morning the lids are completely agglutinated (*Mkl.* and *Kr.*, in *Hahn.*).

##### 2. Sensations.

451. Dull, heavy, aching pain in the eyelids, not severe (*Hale*, II). [s. 448.]  
 452. Eyes and lids feel sore to the touch (*Hale*, IV). [s. 504.]  
 453. An incessant quivering (and blinking) of both eyelids (*Ln.*, in *Hahn.*).  
 454. An incessant trembling and quivering of the right upper eyelid, continuing the whole day, and at last becoming painful (*Htg.*, in *Hahn.*).  
 455. Heaviness of the lids (*Schneller*), especially of the right upper lid (*Rt.*, in *Hahn.*).  
 456. The patient could not fully raise her lids without the aid of a finger ('*Lancet*,' 1854, I, 212).  
 457. Dilated eyelids; eyes wide open (*Hahn.*).

#### LACHRYMAL APPARATUS.

[See also Sympt. 449.]

458. Swelling and suppurative inflammation of the left caruncula lachrymalis, at first with burning, afterwards with pressing pain, for 3 days—4 days after (*Mkl.*, in *Hahn.*).  
 459. Lachrymation (*Ibid.*).  
 460. Involuntary lachrymation (*Hahn.*).  
 461. Total absence of lachrymation, and motion of the eyes attended with a sense of dryness and stiffness; the conjunctival vessels fully injected (*Hughes*, III). [s. 370, 414.]



## SURFACE.

1. *Appearances.*

462. Eyes open; the lids not winking on passing the finger in front of them, with insensibility (*Hughes, I.*). [s. 1204.]
463. The eyes had a staring look (*Hughes, V.* and *Muller and Dumoulin, in Hahn.*).
464. The eyes are projecting and sparkling (*Glimm., in Hahn.*).
465. Eyes brilliant (*Hughes, I.*). [s. 183, 405.]
466. Tunica conjunctiva highly injected, and the whole eye prominent and preternaturally brilliant (*Hughes, II.*). [s. 1205.]
467. Eyeballs red and prominent (*Christison, p. 763.*).
468. In the morning the white of the eye is streaked with red, with pressive pain (*Hahn.*).
469. Inflammation of the eyes; the conjunctiva is covered with red vessels, with shooting pain; the eyes water (*Hbg., in Hahn.*).
470. Conjunctiva of a bright crimson colour (*Harley, in a horse.*). [s. 470.]
471. Ophthalmia of several days' duration (*Ibid., in a dog.*).
472. The sight of the right eye had become rather clearer, but that of the left eye more impaired, the upper lid more tumefied and prolapsed, the conjunctiva more vascular, and raised above the margin of the transparent cornea, which in a few days became opaque; and a small quantity of a puriform fluid had accumulated in the anterior chamber of the eye (*Hughes, IV.*). [s. 444.]
473. Pain in the eyeballs, intolerance of light, and conjunctival inflammation, followed by dilated pupils and loss of sight permanently ('*Lancet,* 1844, I, 251).
474. Inflammation of the eyes; swelling of the veins of the sclerotica, with a tickling sensation (*Hahn.*).
475. Injection of the sclerotica (*Harley, in a horse.*). [s. 470.]
476. Yellowness of the white of the eyes (*Hahn.*).

2. *Sensations.*

477. Crawling, pressive pain in the eyes, as if they were full of sand; she was obliged to rub them—1 hour after (*Hahn.*; also *F. H-n.* and *Lr., in Hahn.*).
478. Feeling of heat in the eyes; it was as if they were surrounded by a hot vapour (*Hahn.*).
479. Eye dry; motion attended with a sense of dryness and stiffness (*Hughes, III.*). [s. 461.]
480. I have myself once or twice experienced slight congestion of the entire conjunctiva, with dryness of the membrane and dull aching pain in the eyeball, lasting for several hours, after the use of a very weak solution of Atropia. On one occasion this condition followed the instillation of 12 drops of a solution of one part of Sulphate of Atropia in 400,000 parts of water (*Harley.*).
481. Itching shoots in the internal canthi, which rubbing only temporarily removes—1 hour after (*Ws., in Hahn.*).
482. The internal canthus of the left eye is very painful, even to a slight touch (*Gss., in Hahn.*).
483. Smarting in both eyes (*Hbg., in Hahn.*).
484. Feeling of burning dryness in both eyes, more violent alternately in the one or the other—7 hours after (*Mkl., in Hahn.*).

485. Burning in the eyes, coupled with acute itching; both, however, cease when the eyes are pressed upwards (*Ibid.*).
486. Pain and burning in the eyes (*Greding, I, in Hahn.*).
487. Shooting in the eyes from within outwards (*Kr., in Hahn.*).
488. A general pressure in both eyes, as if hard spring water had got into them (*Ln., in Hahn.*).

## PUPILS.

489. Next to its influence on the circulation, the most prominent effect of the action of Belladonna consists in dilatation of the pupils (*Harley.*).
490. Dilated pupils (nearly every prover, and every animal experimented upon and human subject poisoned).
491. Very contracted pupils the whole day, which first begin to dilate in the evening (*Stf., in Hahn.*).
492. Excessive contraction of the pupils, with headache (*Hahn.*). [s. 291.]
493. Contracted pupils—10 minutes after (*Gss.*), 1½ hour after (*Ws.*), 2½ hours after (*Lr., in Hahn.*).

## GLOBES.

1. *Appearances.*

494. Eyes protruding (*Hughes, XI, 4.*). [s. 375.]
495. Protruded eyes with dilated pupils—6 hours after (*Mkl., in Hahn.*).
496. The eyes turn spasmodically round and round (*Boucher, in Hahn.*). [s. 20.]
497. Eyes and hands are in constant spasmodic motion (*Ibid.*).
498. Spasms of the eyes, distorting them (*Schreck, in Hahn.*).
- 498a. Eyes alternately fixed and very movable (*Orfila, Obs. 7.*).
499. The eyes became distorted, with redness and swelling of the face (*Buchave, in Hahn.*).
500. Diplopia or slight strabismus (*Michen.*).

2. *Sensations.*

501. Dull pain in the eyes—1 hour after (*Hale, I.*).
502. Deep-seated, dull pain in the back of the eye (*Hale, II.*).
503. Pain in the eyes, as if the eyeballs were being pressed about in every direction (*Ibid.*).
504. A dull, bruised feeling in the temples, and within the last ten minutes a severe pain in the left eyeball (*Ibid., IV.*). [s. 452.]
505. When she closed the eyes, a pressive pain deep in the eyeball (*Stf., in Hahn.*).
506. Feeling in the eyes as if they protruded (*Ibid.*). [Comp. s. 299, 494.]
507. Difficulty in moving the eyeball (*Michen.*).

## FUNDUS.

508. Pupils fully dilated, and a bright red glare was reflected from the fundus of the eye (*Harley, in a horse.*).
509. The optic disc greatly deepened in tint, and the retinal arteries and veins much enlarged, the veins most markedly so—1½ hour after taking a drachm of the tincture (*B. P.*). (*Aldridge, in 'West Riding Reports,' vol. II.*)



## ORBITS.

510. A confused pressure comes in the right orbit, and alternately shifts into the forehead and back again (*Gss.*, in *Hahn.*).  
 511. Pain in the orbits; often it feels as if the eyes were being torn out, sometimes (and more lastingly) as if they were being pressed into the head: in addition to which there is a pain which presses down from the forehead into the eyes (*Ibid.*).

## UNDER THE EYES.

512. Drawing pain under the left eye from below upwards (*Hahn.*).  
 513. Sharp pain under the right eye, with slight pain in the temples; head hot—4 hours after (*Hale*, I). [s. 293.]

## VISION.

514. At the end of 2½ hours the dilatation of the pupil was such that it contracted to ¼" only at the bright light of day. On endeavouring to read the paper at the usual distance, he was unable to decipher even the head lines. There was a thick haze before the eyes; he could not distinguish his finger nails, and the letters appeared run together to form an uniform dark surface. But when he held the paper at full arm's length, and at the same time inclined the head backwards—making a distance of 36 inches—he was able to read the smallest type of the 'Times' newspaper fluently. By means of a double convex lens, or a pin hole in a card, he was able to read any type at a distance of three inches from the eye (*Harley*).  
 515. The impaired vision of Belladonna is chiefly or entirely presbyopia. In two cases magnifying glasses enabled the subject to read with ease (*Pereira*).  
 516. His difficulty in seeing small objects which were near him (the pupils were still dilated) was now the most prominent feature remaining of his illness—after 24 hours (*Hughes*, I).  
 517. Can see to read a little, but after a few words the letters grow indistinct, and am obliged to close the eyes to rest them (the pupils were still dilated) (*Hale*, I). [s. 558.]  
 518. She says she can see distinctly for a moment only, and then my face becomes horribly distorted—28 hours after (*Hughes*, X). [s. 373.]  
 519. A feeling as if he could see nothing, and yet he saw when he tried to see something, and strained his eyes for the purpose (*Rt.*, in *Hahn.*).  
 520. After vertigo came on the affection of the eyesight, every object growing dim, as though a crowd were between the eye and it. Sometimes objects appeared double, and with an undulating motion passed before the eye. I observed that by a strong effort of the will, a concentration of the nervous power, this paralysis of the retina (?) might for a moment be combated, but only to return with greater severity when the mental effort had been succeeded by its corresponding relaxation. The pupils were immovably dilated (*Hughes*, III). [s. 466.]
- \* The dilatation of the pupil whose visual effects are here described was actually accomplished by Hyoscyamine. But as the phenomena of mydriasis, whether produced with this alkaloid or with Atropine, are identical, I have not hesitated to transfer this full description of them to the present list of symptoms.
521. Letters swim while reading (*Schneller*).  
 522. Entire loss of power of estimating distances (*Hale*, I and IV; also the animals experimented on by *Harley*).  
 523. Dilatation of the pupils, with presbyopia (*Hughes*, XIV).  
 524. He can see distinctly only quite distant objects and completely parallel rays, as those of a star in the heavens (after injecting the juice of Belladonna into the eyes; *Wells* and *Ware*, in *Hahn.*).  
 525. He sees nothing close at hand, at a distance everything appears double (*Stf.*, in *Hahn.*).  
 526. She sees objects double (*Henning* in *Hahn.*, and *Hughes*, X).  
 527. Diplopia or slight strabismus (*Michen*).  
 528. Every object in the room, both real and spectral, had a double, or at least a dim outline, owing to the extreme dilatation of the pupils (*Anstie*). [s. 78.]  
 528a. Pupils still dilated, with diplopia; upon looking at a newspaper, the letters seem to expand and contract with each pulsation of the heart—13 hours after (*Hale*, III).  
 529. Objects appeared double, and they seemed to revolve and run backwards (*Hughes*, XV). [s. 538.]  
 530. Quick rotation and duplication of objects (*Lusanna*, in *Hughes*).  
 531. She sees objects inverted (*Henning*, in *Hahn.*). [s. 526.]  
 532. On reading, the letters shone, partly like gold, partly like blue size, and trembled (*Bucholz*, in *Hahn.*). [Comp. s. 544.]  
 533. A large halo appears round the flame of the candle, parti-coloured, the red predominating: at times the light seems as if broken up into rays (*Mkl.*, in *Hahn.*).  
 534. A thick cloud obscured vision, and images were confused, with a reddish tinge (*Harley*: in an adult, an hour after swallowing 1½ grains of *Atrop. sulph.*). [Comp. s. 508, 509.]  
 535. Objects appear at first enveloped in a white vapour: the contours are no longer distinct. If the dose is increased, almost complete blindness may ensue (*Grandi*, in *Pereira*).  
 536. Imperfect sight, objects appearing white to him (*Hughes*, V).  
 537. It is impossible to cause colour-confusion by the use of Atropine; but partial colour-blindness may be induced by either the internal or external use of it. The impressions made by colour are altered by Atropine as regards strength, exactly as they are by the different degrees of solar light on different days (*Rose*, Brit. Journ. of Hom., XXVII, 225).  
 538. Occasional flashes of light before the eyes (*Hughes*, XV). [s. 529.]  
 539. Bright flashes of light before the eyes immediately upon closing them (*Hale*, III). [s. 86.]  
 540. [He sees sparks, as of electricity, before the eyes, especially on moving them.] (*Ziegler*, in *Hahn.*).  
 541. Large bright sparks before the eyes (*Hahn.*).  
 542. When laying her hand upon her swollen cheek, she sees flames before her eyes, and the air seems to her like a fog mist (*Kr.*, in *Hahn.*). [s. 424.]  
 543. She sees in the ceiling of the room a white star as large as a plate; and across it, from left to right, light silvery clouds seem passing—oftentimes and in various places (*Ibid.*).



544. The medicine produced temporary bright spots and stars before the eyes, and a brilliant glow around the letters [comp. s. 532], which frightened him greatly (Amer. Journ. of Hom. Mat. Med., Nov. 1872. From *Atrop.* gr.  $\frac{1}{100}$ th bis-quater die, in a case of ulcer of stomach in a man of 40).
545. Weakness of vision increased without any dilatation of the pupils (*Schneller*).
546. Indistinctness of vision was most complained of when the pupils were of their natural size, and were contracting freely under the stimulus of light (*Fuller*, Brit. Med. Journ. 1859, p. 704. A number of children treated for chorea with large doses of Ext. Belladonnae).
547. In reading, he can discern nothing in the book but the white margin which surrounds the area of black letterpress (*Moibanus*, in *Hahn*).
548. Eyes open; lids not winking on passing finger in front of them—first four hours.  
He winks a little when the candle is put close to his face, but he sees nothing else; he has just said "I can't see mamma"—about 12 hours after.  
He can now distinguish objects—17 hours after (*Hughes*, I).
549. Retina quite insensible to the influence of strong daylight (*Hughes*, IV).
550. He was quite blind, and stared vacantly (*Hughes*, VIII).
551. The eyelids did not close when the hand was passed suddenly before them. He had evidently lost the power of vision, although he stared fixedly at objects as if he saw them (*Hughes*, XV).
552. Objects appear as if enveloped in a mist. As the dose is increased the obscurity increases even to perfect blindness (*Lusanna*, in *Hughes*). [Comp. s. 535.]
553. Dimness of sight or actual blindness (*Justi*, *Hasenest*, *El. Camerarius*, *Ollenroth*, *Greding*, *Lambergen*, *Bucholz*, and *Sauter*, in *Hahn*).
554. Vision so completely lost that even the brightest light cannot be distinguished (*Christison*, p. 763).
555. In birds, blindness, and a red spot at the part of the cranium corresponding to the tubercula quadrigemina, from infiltration of the diploë (*Flourens*, in *Trousseau* and *Pidoux*).
556. Whilst the obscurity of objects is increasing, various phantoms are observed, gigantic forms, and sometimes laughable, sometimes terrifying appearances (*Lusanna*, in *Hughes*: and most cases of poisoning).
557. Sight and hearing morbidly sensitive (*Harley*: from gr. i of *Atropine*). [s. 374.]
558. Eyes intolerant of light (*Hale*, I). [s. 513.]
559. Photophobia: he avoids looking at the light (*Justi*, in *Hahn*).

#### Commentary.

The eye is (with the brain, throat, and urinary system) one of the chief local spheres of the action of Belladonna. The symptoms it causes here may be classified in three groups—the first comprising its inflammatory effects; the second its influence upon the pupil; the third the disorder of vision produced by it.

1. That Belladonna inflames the eye is very obvious. The injection of the ocular membranes (as in s. 470, 473) is not merely symptomatic of cerebral hyperæmia, but is a

direct tissue irritation, as seen in s. 444–450, 458, 468–474, 477–488. The conjunctiva, ocular and palpebral, is the membrane chiefly affected; but the sclerótica, and probably also the iris and retina (s. 472–3, 502, 508–9, 532–34, 538–44) are sometimes involved. The lachrymal sac and canals show signs of the same influence (s. 449, 458).

Belladonna is, accordingly, a prime remedy in homœopathic practice for inflammatory affections of the eyes. It is indicated in the severer forms of catarrhal ophthalmia, and in inflammatory forms of strumous ophthalmia. Sense of burning and dryness in the eyes is characteristic of it here. I have seen it act admirably in two cases of traumatic iritis. It would be suitable to retinal hyperæmia, and even to retinitis when acute and recent.

2. Belladonna is the typical "mydriatic;" dilatation of the pupil is an almost invariable symptom of its action. The symptoms 491–93 are the only instances on record of contraction of the pupils under its influence. They are either symptomatic of head affection (as in s. 492), or are, perhaps, explained by the following extract from Dr. Harley, which also suggests the rationale of the mydriasis. "Just at the time when the dilatation of the pupils was beginning, after a dose of belladonna, I have called in a patient from a subdued light, and placed him at a distance of three or four feet from an ordinary gas lamp. On examining the pupils, I have now and then been much surprised to find them decidedly smaller than they were under the same circumstances before the injection. This contraction has persisted for several minutes, when all at once the pupil has given way and become broadly dilated. It would seem from this observation as if the third nerve had been roused to unusual exertion just at the time when the increasing influence of the sympathetic began to be first felt, and that the sudden stimulus of light had called forth its opposing energy to such a degree, that for a few minutes it was able to repress the rising force of the sympathetic, which a little later on would become overpowering."

Dr. Harley thus refers the mydriasis of Belladonna to a stimulant influence exerted upon the radiating fibres of the iris through the sympathetic nerves which supply them. I have argued out the same hypothesis in detail in the 'Brit. Journ. of Hom.' vol. xxii, p. 435. I may add here that the widely open, staring, and protruding eyes often associated with the dilatation of the pupils (s. 457, 463–4, 466–7, 494–5) point in the same direction, this group of symptoms always resulting from galvanic excitation of the cervical sympathetic. Dr. Harley, moreover, advances against the opposite hypothesis of paralysis of the third nerve the very different effects of Conium (which undoubtedly causes such paralysis) and Belladonna on the eye.

The dilated pupil of Belladonna is thus an independent effect, unconnected with its cerebral symptoms, and, indeed, often opposed to them. For the active hyperæmia it sets up within the cranium is always, when occurring idiopathically, connected with contraction rather than dilatation of the iridal aperture. A dilated pupil, therefore, is at least no necessary homœopathic indication for the use of Belladonna in cerebral disorder, and often, indeed, tells of a condition of exhaustion or effusion, to which the drug is quite unsuitable.\*

3. The impairment of vision caused by Belladonna is of

\* See farther, Dr. Drysdale's remarks in vol. xxvi of the 'Brit. Journ. of Hom.' p. 83.



two kinds—the one inseparably connected with the dilatation of the pupils, the other pointing to an influence on the retina.

a. The former is pictured in s. 514–25. It is, in a word, *presbyopia*. Dr. Harley calls it hypermetropia, but there is no evidence of flattening of the lens, or of improvement of the vision of distant objects by convex glasses. It is entirely the effect of the dilatation of the pupil, for when this is neutralized by looking through a pinhole on a card, near vision becomes practicable once more. Dr. Dudgeon has called special attention to the importance of the contraction of the pupil in accommodation for near vision;\* and it seems probable that the “paralysis of accommodation” ascribed to Atropine by ophthalmologists is to be explained as inability to contract the pupil. Dr. Harley’s dogs well exhibit the connection between the presbyopia of Belladonna and the want of power of estimating distances noted by Dr. Hale’s provers (s. 522). And Mr. Soelberg Wells explains clearly how it causes the asthenopia figured in s. 517–20.† The eye has to put such strain upon its power of accommodation in order to see near objects, that it soon becomes wearied and weakened.

Belladonna is thus hardly homœopathic to the presbyopia of old age, which results from changes in the eyeball; but it should be tried when the defect comes on in early life, and is accompanied by mydriasis. Asthenopia also, when the pupil is much dilated, would call for it.

b. But Pereira is mistaken in supposing (s. 515) that the impaired vision of Belladonna “is chiefly or entirely presbyopia.” The drug displays an unmistakable influence on the retina. The chromatopsia of s. 532–37, and the photopsia of s. 538–44 indicate this; and in higher degrees of poisoning true amaurosis is set up (s. 535, 547–55), without necessarily any mydriasis (s. 545–6). There is nothing surprising in this, as we have already seen the power of the drug in abolishing tactile sensibility.

The visual hallucinations of s. 556 and hyperæsthesia of s. 557–9 belong to the action of Belladonna on the brain.

The therapeutical inferences from these facts are obvious.

## EARS.

### AURICLES.

#### 1. *Appearances.*

560. Purulent moisture exudes from the ears for 20 days (*F. H-n.*, in *Hahn.*).

#### 2. *Sensations.*

561. TEARING IN THE EXTERNAL AND INTERNAL EAR IN A DOWNWARD DIRECTION (*Hahn.*).

562. Tearing pain in the right external ear, and the whole of the right side of the face, downwards—24 hours after (*Ibid.*).

563. Tearing pain on the posterior side of the cartilage of the left ear (*Ws.*, in *Hahn.*).

564. Tearing pressure in the lower half of the cartilage of the right ear (*Hrn.*, in *Hahn.*).

565. Tearing externally in the right ear from before backwards (*Hbg.*, in *Hahn.*).

566. A very disagreeable feeling in the right ear, as if it

would be forcibly torn out of the head (*Gss.*, in *Hahn.*).

### MEATUS.

567. Shootings in the external meatus (*Rt.*, in *Hahn.*).

568. Feeling in the external meatus as if some one pressed upon it (*Ibid.*).

569. A disagreeable pressure in the meatus, as if one were boring in it with the finger (*Ln.*, in *Hahn.*).

### INTERNAL EAR.

570. TEARING IN THE INTERNAL AND EXTERNAL EAR IN A DOWNWARD DIRECTION (*Hahn.*). [*s.* 561.]

571. Shootings in the internal ear, with hardness of hearing on that side (*Ibid.*).

572. Shootings extending from the superior maxilla into the internal ear (*Ibid.*).

573. Shootings in the internal ear, during eructations from the stomach having the taste of the ingesta—12 hours after (*Ibid.*).

574. Pinching in the ears, first in the right, then in the left, immediately after hiccough (*Kr.*, in *Hahn.*).

574a. Otalgia in the left ear—5 days after (*Hbg.*, in *Hahn.*).

575. Acute thrusts in the internal ear, with pinching, like ear-ache (*Ws.*, in *Hahn.*).

### MASTOID PROCESS.

576. Violent pressure on the mastoid process below the ear (*Gss.*, in *Hahn.*).

577. Incisive thrusts through the mastoid process from without inwards—12 hours after (*Ws.*, in *Hahn.*).

### ROUND ABOUT THE EARS.

578. Tearing pain in the right external ear and the whole of the side of the face, downwards—24 hours after (*Hahn.*).

579. Boring pain close to the right ear (*Kr.*, in *Hahn.*).

580. Pressing tearing behind the right ear—½ hour after (*Htn.*, in *Hahn.*).

581. Behind the left ear the muscles are painful as far as the throat, as if they were violently pressed upon, and a similar pain also in the muscles of the forehead (*Hbg.*, in *Hahn.*).

582. A transient shoot darts from the ear to the chin—1 hour after (*Ws.*, in *Hahn.*).

583. Drawing pain from the ears into the nape of the neck (*Hbg.*, in *Hahn.*).

### HEARING.

584. Hallucinations of the sense of hearing, consisting of various sounds, roaring &c., occur infrequently (*Lusanna*, in *Hughes*).

585. Occasionally disturbances of hearing, as singing in the ears (*Pereira*).

586. Perceptions of noise, tinkling sounds as of bells, etc. (*Grandi*, in *Pereira*).

587. Ringing in the ears (*Schneller*).

588. In the morning, immediately after waking, a fluttering and bubbling before the ears (*Hahn.*).

589. First a din as of trumpets and kettle-drums in the ears, and as of the rushing of wind—immediately; afterwards a humming and buzzing, worst when sitting, better when standing and lying, still better when walking (*Ibid.*).

590. Noises in the ears (*Vicat*, in *Hahn.*).

\* *Brit. Journ. of Hom.*, xxx, 35.

† *Ibid.*, xx, 149.



591. Roaring in the ears, vertigo, and dull colic (*Greding*, IX, in *Hahn*.).
592. Deafness, as if a skin were drawn over the ears (*Hahn*.).
593. Shootings in the internal ear, with hardness of hearing on that side (*Ibid*.).
594. He could neither hear nor speak plainly (*Hughes*, V).
595. If the patient sleeps, he is troubled by dreams, and at intervals disturbed by a start. A fancied noise is a common cause of awakening, and at these times the patient generally manifests a little delirium (*Harley*).
596. Exquisite sensibility of hearing, and illusions of this sense also (*Ibid*.).
597. I frequently, through the forenoon, thought that persons in the room spoke to me, and would carry on conversation with these imaginary beings (*Hale*, I). [s. 87.]

#### Commentary.

The Ear-symptoms of Belladonna are comparatively unimportant. One only of an objective character appears [s. 560]; and, standing alone, hardly warrants a physiological inference. Hartmann, however, has cured the post-scarlatinal otorrhœa of scrofulous children with the drug. The sensations recorded in s. 567-575 may be fairly interpreted as implying hyperæmia of the meatus and tympanic cavity, and perhaps of the Eustachian tube; and may justify the remedial use of Belladonna in congestive otalgia and perhaps in otitis. Hartmann writes—"Although I am convinced, from repeated experience, that Pulsatilla is almost specific in *otitis interna et externa*, still cases do occur in which it is not sufficient, but must give way to Belladonna. This occurs where the internal inflammation is more vividly developed than the external, or where the consensual cerebral symptoms are prominent phenomena."

The disorders of hearing induced run parallel with those of vision. The tinnitus aurium of s. 584-591 corresponds with the chromatopsia and photopsia of s. 532-537; and is probably congestive in nature. The deafness of s. 592-594 answers to the amaurosis of s. 547-555; but I am not sure that it is a true anæsthesia like that, and not rather congestive also (see especially s. 593). The hyperæsthesia and hallucinations of s. 595-597, like the similar conditions in the eye, are plainly of cerebral origin. The curative applicability of the drug in auditory affections follows accordingly.

### DIGESTIVE SYSTEM.

#### JAWS.

[See also Sympt. 24-27.]

598. On masticating, a violent shooting in the right maxillary joint extending into the ear, which continues till some time after he has finished, though it then rather resembles a drawing or pulling (*Stf.*, in *Hahn*.).
599. Fine shootings in the socket of the maxillary joint—1 hour after (*Ws.*, in *Hahn*.).
600. Sharp shootings in the chin (*Ibid*.).
601. A nestling, spasmodic sensation in the chin (*Hahn*.).
602. Shooting and tension of the lower jaw, in the direction of the ears (*Rt.*, in *Hahn*.).
603. She feels as if her lower jaw were drawn backwards:

it hurts her much to advance it, and biting causes excessive pain (*Ws.*, in *Hahn*.).

604. Clucking (as of a hen) along the under edge of the lower jaw (*Ws.*, in *Hahn*.).

#### LIPS.

[See also Sympt. 430.]

605. Raw feeling at the corners of the mouth, as if they would ulcerate (*Stf.*, in *Hahn*.).
606. Corners of the mouth ulcerated, just at the commissure of the lips, with uncommonly severe tearing pains round about, even when unmoved and untouched (*Hahn*.).
607. In the corner of the mouth an ulcer with red edges and corrosive itching (*Ibid*.).
608. Pustules at the borders of the lips, with smarting pain (*Ibid*.; and *Hbg.*, in *Hahn*.).
609. A small pustule on the upper lip, with creeping sensation while untouched, but contact produces an itching shooting therein (*Ibid*.).
610. Small, pale-red papules in the corners of the mouth, with sensibility; they soon disappear without suppurating (*Hrn.*, in *Hahn*.).
611. At the outer edge of the lips a burning pain, and small vesicles—24 hours after (*Stf.*, in *Hahn*.).
612. Drawing in the upper lip, with subsequent red swelling (*Kr.*, in *Hahn*.).
613. Severe swelling of the upper lip; it feels tense on opening the mouth (*Hahn*.).
614. Abscess of the upper lip, causing painful swelling, with fever, headache, and loss of appetite, ending in free discharge of pus (*Lamberg*, in *Hahn*.).
615. The lips, and especially the upper one, crack in the middle in sneezing and coughing (*Hahn*.).
616. Mucous membrane of the lips dry and parched (*Hale*, I and II).
617. Tongue and lips completely dry; the latter glazed, the former dry and cracked (*Harley*, in a horse).
618. Teeth and lips dry, and covered with sordes—2 hours after (*Sharpey*).

#### Commentary.

The lips have a twofold physiological relation. They are part of the facial surface: and they are the leaves of the door of entrance of the alimentary canal. Their Belladonna-symptoms fall into two divisions accordingly. S. 605-614 really belong to the face, and compare with s. 421-427 of that category. S. 612-614 suggest furuncular inflammation of the lip, if not malignant pustule, as likely to be controlled by our medicine. It is doubtful whether they point to the essentially chronic swelling of the upper lip so often seen in scrofulous children. S. 615-618 are affections of the lips in connection with the mouth and throat; and will be considered further on.

#### TEETH AND GUMS.

619. The child complained of great pain in his teeth—48 hours after (*Hughes*, IX). [s. 27, 910.]
620. Toothache with drawing in the ear (*Hahn*.).
621. Toothache rather drawing than shooting (*Ibid*.).
622. He wakes up after midnight with violent tearing (qy.?) in the teeth (*Ibid*.).



623. A drawing in the anterior molars of the right upper jaw, remaining unchanged under all circumstances (*Gss.*, in *Hahn.*).
624. Tearing pain in a lower hollow tooth and in a sound molar adjoining: the pain becomes excessive from contact with air or food—4 hours after (*Hrn.*, in *Hahn.*).
625. (A digging toothache, of brief duration) (*Hahn.*).
626. Toothache: a sharp drawing from the ear down to the hollow teeth of the upper jaw, wherein the pain becomes boring,—easier while eating, more violent afterwards, never entirely ceasing during the day, but most violent at night, and completely preventing sleep (after drinking coffee, the pain becomes a dull jerking and boring) (*Hempel*, in *Hahn.*).
627. On the admission of the open air, a steady pain in the teeth,—a simple toothache, like a soreness (*Hahn.*).
628. The toothache does not come on during a meal, but in the first few minutes after: it increases gradually to a high degree, and as gradually diminishes: it does not follow drinking (*Ibid.*).
629. Toothache in the evening after lying down, and during mental occupation, a dull pain in the nerve of the fang of the tooth, almost as if it were sore, and, when worse, like a continual cutting (*Ibid.*).
630. Several very painful jerkings or bubblings in the nerves of the fangs of one or more teeth (*Ibid.*).
631. A fine shooting pain in one of the upper hollow molars during the whole day, in consequence of which he can hardly sleep at night, followed by swelling of the cheek (*Ibid.*).
632. DULL DRAWING IN THE UPPER RIGHT ROW OF TEETH, THROUGH THE WHOLE NIGHT; the pain would not permit of sleep; the painful part was somewhat swollen (with burning pain), and felt hot to the touch; sometimes painful jerkings in the teeth (*Hbg.*, in *Hahn.*).
633. Extremely painful swelling of the gum on the right side, with fever and sense of chill (*Greding*, XX, in *Hahn.*).
634. Heat in the gums, with itching and throbbing (*Hahn.*).
635. The teeth are painful in biting anything, as if the roots were ulcerated and would break short off (*Ibid.*).
636. The gum on being touched pains as if ulcerated (*Ibid.*).
637. The gum bleeds near to a hollow tooth—6 days after (*Ws.*, in *Hahn.*).
638. Suction of the hollow teeth with the tongue causes blood to flow from them, without pain (*Ibid.*).
639. Vesicle in the gum below one of the front teeth, with pain as if it were burnt (*Hahn.*).
640. Extremely troublesome itching in the gums, with pain in the throat (*Baldinger*, in *Hahn.*).
- 640a. Scraping and scratching in the gums, unaffected by external influences (*Ws.*, in *Hahn.*).
641. (The front teeth are as if too long) (*Hahn.*).
642. Teeth feel on edge (*Hale*, I). [s. 668.]

## COMMENTARY.

The above symptoms illustrate well the importance of instituting "provings" of our drugs, as well as observing poisonings. Nearly every instance of toothache being

caused by Belladonna occurs in the symptoms furnished by Hahnemann and his fellow-experimenters. Had it not been for them, s. 619 would have been too isolated to warrant the expectation that we had a remedy for toothache in this drug, which is now of unquestioned repute. S. 630-36 indicate the variety of the affection in which it is most useful. It is an inflammation of the dental pulp, perhaps even of the periosteum of the socket. S. 641 often indicates the presence of this condition. Belladonna should always be given where burning, throbbing, and swelling are present in toothache, and will often arrest an incipient gum-boil, especially if aided by Aconite. The Belladonna toothache is characteristically worse at night. In vol. xxv of the 'Brit. Journ. of Hom.', p. 624, Mr. Harmar Smith has given some good cases illustrative of the value of the medicine in this affection.

The important place occupied by Belladonna in the dentition troubles of children must here be noted. "It should undoubtedly be administered," writes Hartmann, "in those cases where children awake from sleep as if frightened, look anxiously round, or stare fixedly at some object, with pupils dilated and an altered expression, while all the muscles of the body are in a spasmodic state, the child is quite rigid and stiff, the whole body, but particularly the forehead and the hands, are extremely hot, and the urine is passed involuntarily. Such a state usually continues but a few minutes, but soon recurs, while the heat is constant, and the child is scarcely able to quench its excessive thirst." Again: "If the child has been restless for several nights, without having had any great attention directed to it; if it has tossed about with burning heat of the whole body, and has desired to drink frequently; if there is redness of the skin, trembling of the limbs, anxiety, gasping, sighing, with a short, convulsive, spasmodic cough, succeeded by short, quick, noisy respiration and perceptible oppression of the chest; if the conjunctiva is injected; if the body is agitated by individual shocks, which are repeated almost like those of electricity; if, moreover, convulsions of the limbs supervene, Belladonna is indicated beyond doubt."

## TONGUE.

(with Articulation.)

643. The whole tongue is painful, especially to the touch (*Stf.*, in *Hahn.*).
644. The papillæ on the tongue are of a deep red colour, inflamed and much swollen—3 days after (*Ibid.*).
645. In the middle of the tongue, which is coated white, a severe smarting pain, as if from a vesicle—3 days after (*Ibid.*).
646. Feeling in the tip of the tongue as if there were a vesicle on it, which caused a burning pain on being touched—for 2 days (*Hbg.*, in *Hahn.*).
647. Feeling of coldness and dryness of the anterior half of the tongue (*Kr.*, in *Hahn.*).
648. A feeling as if the tongue lay deeper in the mouth than usual, and so the buccal cavity was more spacious (*Ibid.*).
649. The tongue feels as if asleep, lifeless, and furred—in the morning (*Ibid.*).
650. When asked to protrude the tongue he does it with difficulty, and only after considerable effort; cannot move the tongue about in the mouth at will (*Hale*, II).



651. Trembling of the tongue (*Weinmann*, in *Hahn*).  
 652. The tongue trembles when protruded from the mouth (*Hale*, IV).  
 653. Stammering speech (*Rau* and *Buchave*, in *Hahn*).  
 654. Stammering weakness of the organs of speech, with full consciousness (*Hahn*).  
 655. Paralytic weakness of the organs of speech (*Ibid.*).  
 656. Tongue thick, cannot articulate distinctly (*Hale*, III).  
 657. Slowness and hesitation in the articulation of certain words. The impediment seemed to lie as much in the muscles of the tongue as elsewhere, and I often observed a slight quivering of the tongue. The phenomena reminded of those which characterize the progressive paralysis of the insane (*Michen*).  
 658. After many days' action of Atropia, there manifested itself a slowness and embarrassment of articulation of words (*Grandi*, in *Pereira*).

#### Commentary.

The symptoms above given belong to the tongue exclusively. The phenomena which its mucous membrane presents, as continuous with that of the mouth, will appear in the next section. What we have here is—1st, as in s. 643–646, inflammatory irritation of the parenchyma of the organ; 2nd, as in s. 648–658, a semi-paralysis of its intrinsic and extrinsic muscular element. The former warrant its use in glossitis; the latter help to fill in the outline of apoplectic paralysis already presented. They may also occur as a part of the glosso-laryngeal paralysis of Duchenne: and, as the pathological basis of this disease seems identical with that of locomotor ataxy, Belladonna is well indicated in its treatment while incipient.

#### MOUTH.

(including *Tongue* and *Fauces*.)

659. Dryness of the mouth and fauces always occurs in a few days. At first it is only a subjective symptom, but later it can be observed objectively, depending on a diminution of the salivary secretion (*Lusanna*, in *Hughes*).  
 660. Sensation of great dryness in the mouth, with very irritable temper; at the same time the mouth and throat look moist (*Hahn*; and *Stf.*, in *Hahn*).  
 661. When  $\frac{1}{8}$ th of a grain is subcutaneously injected, the anterior part of the tongue and hard palate will be generally dry; and about the tip of the tongue the dryness will often be so complete as to render this part parched, rough, and brown (*Harley*).  
 662. After gr.  $\frac{1}{40}$ th, the hard and soft palates, arches of the fauces and uvula, and back of the pharynx, are dry and glazed, so that the movable parts are wrinkled as often as the muscular tissue contracts (*Ibid.*).  
 663. His mouth and fauces at this time (to use the words of an attendant) were as dry as a chip (*Hughes*, XVI). [s. 376].  
 664. Mouth so dry that on inserting the finger it will not be moistened. Food all tastes alike, like saw-dust (*Hale*, I).  
 665. Dryness in the mouth, with thirst (*Pereira*, *Hahn*., and *Ln.*, in *Hahn*).  
 666. Aridity in the mouth, as if the mucous membrane had been removed by some pungent or corrosive substance (*Lottinger*, in *Hahn*).  
 667. Dryness in the mouth, which is almost beyond relief (*Meza*, in *Hahn*).  
 668. Loss of sensation in the buccal cavity, with complete loss of taste. When swallowing water from a tumbler I could not be persuaded I had drunk any until convinced by looking into the glass (*Hale*, I and II).  
 669. Those parts of the mouth which are adjacent to the median plane are so completely parched that they fail to impart the least moisture to a bit of bibulous paper or sugar kept in contact with them for several minutes. It is observable that this dryness is greatest along the median line and on either side of it, and that after moderate doses it extends only a short way outwards. Dryness of the lips, the buccal mucous membrane, and the pillars of the fauces, only occurs after large doses; but a very moderate dose is required to render the central part of the tongue dry and parched from back to front, and the hard and soft palates and back of the œsophagus as dry and glazed as a piece of paper (*Harley*).  
 670. If we examine the parts last mentioned we shall find them dark-red and congested, and there will be no difficulty in recognizing a turgid vessel here and there (*Ibid.*; also *Hale*, IV, and *Hempel*, p. 350—from an injection).  
 671. The buccal cavity feels hot (*Hale*, II).  
 672. Sensation of great dryness in the mouth; there was a very little tenacious mucus on the tongue, and the lips were hot and peeled off (*Hahn*).  
 673. Tenacious mucus in the mouth (*Mkl.*), with sensation of dryness (*Hrn.*), hanging in long strings from the mouth (*Greiding*, XX)—(in *Hahn*).  
 674. He noticed that his tongue and throat were extremely dry, and that his tongue was covered with a white, clammy fur, which he could pull off in strings. He drank some water, which seemed even to increase his sense of dryness of the tongue (*Hughes*, XIII).  
 674a. The saliva in her throat was thickened, tenacious, white, and clinging to the tongue like glue, so that she was obliged to put something fluid into her mouth (*Sicelius*, in *Hahn*).  
 675. Tongue, mouth, and fauces devoid of moisture, as if they had been composed of burnt shoe-leather. The secretions of the glands of the mouth, and the saliva, were entirely suspended. A draught of water, instead of giving relief, seemed only to increase the unctuous clammy state of the mucous membrane (*Hughes*, III).  
 676. After continuing about two hours, the dryness of the mouth is suddenly relieved by the appearance of a viscid acid secretion of an offensive odour, like the sweat of the feet. The mouth becomes foul and clammy, and a bitter coppery taste is complained of (*Harley*, from gr.  $\frac{1}{8}$ ).  
 677. Thick, viscid, or slimy mucus in the mouth, afterwards coating the entire buccal cavity (*Hale*, II). [s. 671, 682.]  
 678. Slimy mouth, with the feeling as if a bad smell came from his mouth as when the stomach is disordered (*Hahn*).



679. SLIMY MOUTH IN THE MORNING ON WAKING, WITH PRESSIVE HEADACHE, BOTH OF SHORT DURATION (*Ibid.*).
680. His mouth is full of mucus in the morning; he has to wash it out from time to time; it disappears after a meal (*Ibid.*).
681. He has much mucus in the mouth, especially in the morning after rising, sometimes of a putrid taste (*Hrn.*, in *Hahn.*).
682. Slimy taste in the mouth (*Hahn.*, and *Hale*, II). [s. 677.]
683. Tongue rather dark, but moist—28 hours after (*Hughes*, X). [s. 373.]
684. The mucous layer of the tongue becomes completely dry, brown, and hard (*Harley*, from gr.  $\frac{1}{10}$ ).
685. Tongue dry and furred—48 hours after (*Ibid.*, from gr. i.).
686. Tongue dry, of a yellow brown colour (*Brit. Journ. of Hom.* xxi. 163). [s. 23.]
687. Tongue thickly coated with whitish mucus (*Hale*, II). [s. 677.]
688. Cracked, white-coated tongue, with much flow of saliva (*Hbg.*, in *Hahn.*).
689. Tongue covered with much tenacious yellowish-white mucus (*Justi*, in *Hahn.*).
690. Tongue thickly loaded with a dirty-grey fur—22 hours after (*Sharpey*).
691. Tip and edges of the tongue light red (*Hale*, IV).

## SALIVARY GLANDS.

692. While the mouth continues in the dry condition above described, the salivary glands appear quiescent, and the morbid state of the tongue and palate renders it difficult, if not impossible, to excite a flow of saliva by gustatory impressions; but they readily pour out abundance of secretion when an appropriate stimulus reaches them. In a patient who was suffering from severe neuralgia of the face associated with profuse salivation, the secretion was in no degree diminished when, as occasionally happened, a severe paroxysm of pain came on during the action of a full dose of Atropia (*Harley*).
693. Stoppage of secretion of saliva: smoking does not bring any into the mouth (*Hale*, II).
694. Food will remain in the mouth for minutes without becoming moistened in the least (*Hale*, IV).
695. Excessive secretion of saliva—24 hours after (*Ibid.*, II). [s. 693.]
696. Salivation (*Hahn.*).
697. Abundant salivation (*Ollenroth*, in *Hahn.*).
698. Soreness on the inside of the cheek; the mouth of the salivary duct is as if eroded (*Hahn.*).
699. Shootings in the parotid gland (*Ibid.*).
700. Violent shooting in the right parotid, extending into the external ear, where it becomes cramp-like and then disappears—2 hours after.  
It returns again the following day also, at the same hour (*Ibid.*).

## Commentary.

The action of Belladonna upon the mucous membrane of the mouth is very striking and interesting. "Arrest of secretion" expresses it fairly: but we may go further and enquire upon what this arrest depends. I have coupled

the salivary symptoms with those of the mouth to show that the dryness means something more than diminished saliva, as Lusanna supposes (s. 659). S. 670-672 indicate the presence of a true congestion, analogous to that which we see in a more marked form in the throat. "It is plain, therefore," (to quote Dr. Harley) "that the absence of moisture is not due to occlusion of the blood-vessels: we have in fact a condition which exactly resembles that accompanying the typhous state. The blood-vessels of the part are congested, and the blood is arrested."

Dr. Harley goes on to remind us how delicate an indicator the tongue is of vascular as distinguished from simple cardiac excitement, and that it frequently becomes dry in slight febrile affections in which there is no evidence of congestion in any other part of the body. He thus considers the dry mouth of Belladonna a symptom of the general febrile disturbance which (as we shall see) it sets up. Two of his observations well support this doctrine. "While dryness," he writes, "is the invariable result of the use of Belladonna in health, it is remarkable that the reverse effect occasionally follows its use in disease. A quarter of an hour after the injection of a medicinal dose of atropia beneath the skin of a patient suffering from fever, I have several times observed the tongue, which for days before had been parched, contracted, and hard, swell out again and become moist for a time." And with this change, he says, there is always a fall of the pulse. Secondly, the same association is observed in the physiological action of the drug. When the change of s. 676 has taken place,—"as moisture thus returns to the mouth, the pulse is observed to fall, and it now rapidly resumes its ordinary rate and character."

The therapeutic conclusions from these facts belong to the section on fever.

## THROAT.

(Including *Deglutition.*)

[See also Sympt. 49, 662, 669.]

701. Great dryness in the throat (*Cullen*, in *Hahn.*; and all observers).
702. In a few minutes a feeling of dryness in the throat, causing constant inclination to cough (*Hale*, I).
703. Complete dryness of the tongue, roof of the mouth, and soft palate, extending more or less down the pharynx and larynx, rendering the voice husky, and often inducing dry cough and difficulty of deglutition (*Harley*).
704. Dryness of the fauces, causing excessive difficulty of swallowing, and alteration of the voice (*Hughes*, XIV).
705. Impeded deglutition (*Hahn.*, and many others.)
706. He swallows water with the greatest difficulty, and can get only the very smallest quantity of it down (*El. Camerarius*, in *Hahn.*).
707. Dysphagia is never absent if the use of the drug is persevered in, and keeps pace with the dryness of the fauces (*Lusanna*, in *Hughes*).
708. He cannot swallow on account of the dryness in the mouth, the fauces, and the nose (*Buchave*, in *Hahn.*).
709. About the fauces the sensation of dryness was most distressing. It induced a constant attempt at deglutition, and finally excited suffocative spasms of



- the fauces and glottis, renewed at every attempt to swallow (*Hughes* III). [s. 675.]
710. A constant but unsuccessful attempt at deglutition was observed, and at every renewal of the attempt the muscles of the throat and pharynx would be thrown into violent spasmodic action (*Hughes*, II).
711. Constant urging and wanting to swallow; it was as if he would choke if he did not swallow (*Hahn*.).
712. Aversion to all fluids, so that she behaves frightfully at the sight of them. The forcible administration of fluid medicine makes her furious (*Baldinger*, in *Hahn*). [s. 185, 752.]
713. Marked aversion to all liquids, and spasmodic movements of the pharynx when they are forced to drink (*Orfila*. Obs. 7. Poisoning by berries.)
714. Painless inability to swallow (*Hahn*.).
715. The sensibility of the pharynx was so much impaired and deglutition so imperfectly performed, that, on introducing a warm infusion of coffee into the patient's mouth, the liquid collected about the larynx, and his features became alarmingly turgid in consequence of impeded respiration (*Hughes*, IV). [s. 739.]
716. There was great difficulty in getting the child to swallow, each attempt to do so producing paroxysms of suffocation, which appeared to threaten his existence (*Hughes*, I).
- 716a. She suddenly lost the power of speaking and swallowing and fell into a comatose state—1 hour after (*Hughes*, X). [s. 373.]
717. [Paralytic weakness of the internal parts of the mouth] (*Lottinger*, in *Hahn*.).
718. The dysphagia did not proceed from a spasmodic contraction of the muscles; it seemed rather to be the consequence of a partially paralysed condition (*Michen*.).
719. Cannot feel the passage of water through the mouth or throat when drinking (*Hale*, III).
720. Constriction of the pharynx (*Hughes*, XI).
721. Great constriction of the pharynx from dryness of the part (*Cullen*, in *Hahn*.).
722. His throat and fauces felt constricted on account of the too great dryness of the mouth; there was not a particle of mucus there, and only moderate thirst; yet he could swallow the milk he was drinking (*Stf.*, in *Hahn*.).
723. He chewed the food without being able to swallow it, because the throat seemed to him contracted (*Baldinger*, in *Hahn*.).
724. DURING DEGLUTITION, FEELING IN THE THROAT AS IF IT WERE TOO NARROW, OR DRAWN TOGETHER, AS IF NOTHING WOULD PASS PROPERLY—2 hours after (*Stf.*, in *Hahn*.).
725. Painful narrowing and contraction of the pharynx; when preparing to swallow it feels tense and stretched, even when nothing is swallowed; during actual deglutition it is not more painful; the feeling of the fauces being narrowed itself amounts to pain—60 hours after (*Ws.*, in *Hahn*.).
726. Contraction of the oesophagus, lasting a short time but frequently recurring, more during deglutition than between, and followed each time by a scraping sensation in the region of the epiglottis as if the latter were raw and sore (*Ln.*, in *Hahn*.).
727. Sore-throat; during deglutition, scraping in the soft palate, and sensation as if the part had been rubbed sore (*Hahn*.).
728. Throat feels raw and sore—7 hours after, increasing till he is quite hoarse—10 hours after (*Hale*, IV).
729. Throat quite sore for the past six hours; pain upon swallowing (*Hale*, III).
730. Sore-throat which increases every hour, heat, scraping, narrowing, and feeling of soreness (*Kr.*, in *Hahn*.).
731. Difficult and painful deglutition (*Vicat*, in *Hahn*.).
732. A violent shooting pain in the throat on swallowing and breathing (*Stf.*, in *Hahn*.).
733. Sore-throat; shootings in the pharynx and pain as from an internal swelling, only felt during deglutition and upon turning the head round; likewise when feeling the side of the neck, but not when at rest or in speaking (*Hahn*.).
734. Shootings in the throat on the left side, alike between and during the acts of deglutition (*Htn.*, in *Hahn*.).
735. Pain in the throat (*Baldinger* and *Greding*, VI, in *Hahn*.).
736. At first he complained of pain in his throat (*Hughes*, V).
737. FINE TEARING ON THE INNER SURFACE OF THE CORNER OF THE LEFT LOWER JAW, IN THE LEFT TONSIL AND BEHIND THE LATTER, UNAFFECTED BY CONTACT; THE TEARING IS MORE VIOLENT DURING DEGLUTITION (*Hrn.*, in *Hahn*.).
738. The throat is painful during deglutition and expectoration, a sensation of swelling, more on the left side (*Kr.*, in *Hahn*.).
739. Sensation of heat and dryness in the throat—five minutes after (*Hughes*, IV).
740. His throat became hot and dry—3 hours after (*Hughes*, XV).
741. Burning sensation in the fauces (*Schneller*) every time she took a dose (*Henning*, in *Hahn*.).
742. Violent burning in the throat (the mouth at the same time being naturally moist), which is not at all relieved by drinking, but is by a little sugar, though only for a moment (*Baehr*, in *Hahn*.).
743. Long-lasting burning pain in the fauces; food and drinks burn like brandy (*Remer*, in *Hahn*.).
744. Throat feels raw and irritated. Has had several paroxysms of coughing, caused by the collection of mucus in the throat, occurring once in fifteen or thirty minutes, attended with difficult expectoration of a thick, tough mucus. After coughing, burning in the throat. Mucous membrane of the throat slightly darker than in health, and presents a mottled appearance (*Hale*, II).
745. He felt great soreness in the throat, which looked very red about the tonsils and palate. The soreness extended to the ears (*Hughes*, XVII, second case).
746. Redness of the throat, and burning along the whole alimentary canal (*Christison*, p. 765).
747. Fauces and uvula red; drops of white mucus sticking to the uvula (*Hale*, II.) [s. 744.]
748. The mucous membrane from the posterior third of the palate as far down as could be seen was of a deep crimson colour, and the tonsils were much enlarged (*Hughes*, XVII).
749. For a week afterwards he had sore-throat, difficulty of swallowing to a great degree, with considerable reddening of the mucous membrane of the mouth and fauces; the tonsils slightly swollen (*Schneller*, from one dose of gr. 4½ of the extract).



750. Inflammation of the fauces (*Rau*, in *Hahn*).  
 751. Aphthous inflammation of the throat (*Christison*, p. 765. In two cases).  
 752. In her unconsciousness she frequently put her finger deep into her throat, scratched at her gums, and pressed her throat with both hands (*Baldinger*, in *Hahn*).  
 753. Something seemed to her to rise up out of the abdomen and to press on the throat, with retching, but without sense of nausea or vomiting (*Stf.*, in *Hahn*).  
 754. Throwing up of blood, seemingly proceeding from the fauces (*Cullen*, in *Hahn*).

#### External Throat.

755. Pressive pain externally in the neck, when bearing the head backwards and when touching the part (*Hahn*).  
 756. Swelling of the glands in the nape of the neck, with cloudiness of the head—6 days after (*Ibid.*).

#### Commentary.

The throat is one of the cardinal centres of the Belladonna action, and its use in anginous affections is in proportion. Dryness, dysphagia, constriction, soreness, painful deglutition, swelling, and burning (s. 701-744) are the sensations experienced, and in s. 744-751 we have the objective condition to which they correspond, viz.: one of true inflammation. Correspondingly, for ordinary acute sore-throat Belladonna is as complete a specific as medicine can present. It is specially indicated where there are much heat and pain on swallowing, bright redness of the affected parts, flushed face, and headache. When the sub-mucous infiltration is great, it yields in value to *Apis*; and when the parenchyma of the tonsils is specially affected, *Baryta carbonica* is a better medicine, though s. 737-8 and 748-9 show that Belladonna is not un-homœopathic even here.\* But for simple inflammation of the mucous membrane of the fauces there is no medicine like Belladonna, and the relief it affords is strikingly rapid.

I have also much confidence in Belladonna in non-malignant forms of diphtheria, even when the symptoms are severe. But I think that unless decided improvement has resulted within forty-eight hours of commencing its use, or if the symptoms, yielding at first, should recur, it should be discontinued.

S. 709-713 suggest hydrophobia; and if any medicine has ever cured this disease, it is Belladonna. S. 714-718 are paralytic; and contribute to the homœopathicity of Belladonna to apoplexy and glosso-pharyngeal paralysis.

#### STOMACH.

##### (Including Digestion.)

##### I. Appetite.

757. Loss of appetite is present in all cases, changing to

\* Hahnemann indeed writes in his preface:—"How often do not the severer forms of quinsy (especially those accompanied with external swelling of the throat) become fatal in the hands of practitioners through repeated venesections, leeches, blisters, gargles, poultices, refrigerants, diaphoretics and laxatives; which, without all these torturings, might have been restored to health in a few hours by a single, minute dose of Belladonna."

great voracity at the close of the experiment (*Lusanna*, in *Hughes*).

758. Aversion to food, lasting a long time (*Hahn*).  
 759. Want of appetite (*Glimm* and *Lottinger*, in *Hahn*).  
 760. No appetite; he loathed everything (*Hahn*).  
 761. Diminished appetite; animal food is especially disagreeable to him (*Ws.*, in *Hahn*).  
 762. All his appetite goes away after smoking tobacco (*Hahn*).  
 763. He is seized with a desire for this or that; but he has no relish if he eats it (*Ibid.*).  
 764. Decided hunger, but no inclination for any one kind of food (*Hbg.*, in *Hahn*).  
 765. Appetite for thin broths and for bread and butter, but for nothing else (*Kr.*, in *Hahn*).  
 766. Loss of appetite with feeling of emptiness and hunger; if he begins to eat, he relishes the food and eats as usual (*Hrn.*, in *Hahn*).

##### 2. Thirst.

767. [Total disinclination for all kinds of food and drink, with frequent, weak pulse] (*Greding*, XVI, in *Hahn*).  
 768. No desire for drinks, absence of thirst (*Hahn*, and *Hrn.*, in *Hahn*).  
 769. No thirst, in spite of the dryness of the throat (*Lusanna*, in *Hughes*).  
 770. Desire for beverages, without appetite for drinking; he scarcely put the drinking vessel to his mouth before he set it down again—8 hours after (*Lr.*, in *Hahn*).  
 771. Most astonishing thirst in the evening, with watery taste, though all liquids are loathsome to her (*Kr.*, in *Hahn*).  
 772. Considerable thirst for cold drinks, without heat—7 hours after (*Lr.*, in *Hahn*).

##### Taste.

[See also Sympt. 1.]

773. Repugnance to beer (*Hahn*).  
 774. Repugnance to acids (*Ibid.*).  
 775. Coffee is disagreeable to her (*Baehr*, in *Hahn*).  
 776. Camphor is loathsome (*Ibid.*).  
 777. Aversion to milk, which she generally and very readily drinks; it appears to her to have a loathsome, very disagreeable smell and (bitter, sourish) taste, which disappears, however, after continuing to drink (*Stf.*, in *Hahn*).  
 778. Bread smells (*Hahn*) and tastes sour (*Hahn*; and *Hbg.*, in *Hahn*).  
 779. (Bitter taste of the bread and apples in the evening) (*Hahn*).  
 780. Everything tastes salt (*Hale*, IV).  
 781. Salt taste of food, as if everything had been salted—25 hours after (*Stf.*, in *Hahn*).  
 782. At the commencement of a meal food has its proper taste, but all at once everything appears to her to taste too salt or disagreeably insipid, with a feeling in the throat just as if she should vomit what she had taken (*Ibid.*).  
 783. Salt, sourish taste in the mouth (*Ibid.*).  
 784. Slight sweetish taste in the mouth (*Hale*, II; and *Hbg.*, in *Hahn*).



785. Pappy taste in the mouth, with white, furred tongue—3 hours after gr.  $\frac{1}{4}$  (*Schneller*).  
 786. Disgusting taste in the mouth, with clean tongue (*Hahn.*).  
 787. Spoiled taste in the mouth (*Greding*, VIII, in *Hahn.*).  
 788. Extraordinary taste of the saliva (*Vicat*, in *Hahn.*).  
 789. Insipid taste in the mouth (*Hbg.*, in *Hahn.*).  
 790. Loss of taste (*Lottinger*, in *Hahn.*).  
 791. Food all tastes alike, like saw-dust (*Hale*, I.). [s. 664.]

## 4. Eructations.

(Including Heart-burn and Water-brash.)

792. Frequent eructations from the stomach (*Ln.*, in *Hahn.*).  
 793. Eructations and vertigo (*Greding*, XV, in *Hahn.*).  
 794. INEFFECTUAL INCLINATION TO ERUCTATE. HALF-SUPPRESSED, INCOMPLETE ERUCTATIONS (*Hahn.*). [s. 827.]  
 795. Eructations tasting of the ingesta (*Hahn.*).  
 796. Eructations tasting like the yolk of egg at intervals during the day (*Hale*, II).  
 797. Bitter eructations after a meal (*Hahn.*). [Comp. s. 803.]  
 798. Putrid eructations (*Greding*, VIII, in *Hahn.*).  
 799. Burning, sour eructations, during which a corrosive acid moisture came into the mouth, with a kind of strangling (*Stf.*, in *Hahn.*).  
 800. Heart-burn (when smoking); a scraping, burning, smarting sensation remains long after, at the commencement of the throat and upper part of the larynx—2 hours after (*Hahn.*).  
 801. In the evening the bread and butter, or at least the last of it, tasted very sour, and he generally experienced more or less heart-burn afterwards, which continued for two hours (on eight evenings in succession)—4 days after (*Ibid.*).  
 802. Accumulation of water in the mouth in the evening for half an hour (*Kr.*, in *Hahn.*).

## 5. Nausea and Vomiting.

803. Nausea and inclination to vomit, in the throat (not in the scrobiculus cordis), with occasional bitter eructations, in the evening (*Stf.*, in *Hahn.*).  
 804. Frequent attacks of nausea in the forenoon—72 hours after (*Hahn.*).  
 805. Squeamishness after breakfast (*Ibid.*).  
 806. Slight nausea, lasting but a few minutes, coming on again after an interval of half an hour (*Hale*, I).  
 807. NAUSEA IN THE STOMACH (*Hrn.*, in *Hahn.*).  
 808. Nausea—15 minutes after.

After 2½ hours vomiting, readily induced by drinking warm water (*Harley*, from gr.  $1\frac{1}{2}$  of Atropine).

809. The influence of medicinal doses on the intestinal secretions is not very marked, but when given by the mouth and in large doses Belladonna frequently causes nausea, and in poisonous doses vomiting and sometimes diarrhoea (*Harley*).  
 810. Nausea, inclination to vomit, and such violent thirst that they were obliged to drink an excessive quantity of water (*Baldinger*, in *Hahn.*).  
 811. Disposition to vomit when walking in the open air (*Hahn.*).  
 812. Loathing with inclination to vomit, especially when he would eat (*Sicelius*, in *Hahn.*).  
 813. Frequent loathing and retching (*Greding*, II, in *Hahn.*).

814. Vomiting, in the evening (*Ibid.*, V).  
 815. Vomiting, vertigo, and flushes of heat (*Ibid.*, I).  
 816. Vomiting and profuse sweat (*Ibid.*, XVI).  
 817. Vomiting of mucus after noon (*Ibid.*, V).  
 818. Vomiting of bile and mucus (*Meza*, in *Hahn.*).  
 819. Vomiting of undigested food, which had been taken twelve hours before (*Glimm*, in *Hahn.*).  
 820. Excessive vomiting (*Göckel*, in *Hahn.*).  
 821. Hurried from bed and vomited profusely; easy vomiting of a watery fluid, bitter at first, nearly tasteless afterwards—11 hours after.  
 An hour after, a similar attack (*Hale*, III).  
 822. He wakes out of sleep three times about midnight; he raises himself three times to vomit, with cold sweat, as from anguish, but in vain (*Hahn.*).  
 823. Ineffectual disposition to vomit, empty retching (*Hahn.*; and *Hbg.*, in *Hahn.*).  
 824. Inclination to vomit; unsuccessful retching: he cannot vomit, inexcitability of the stomach (*May*, in *Hahn.*).  
 825. Difficulty in exciting vomiting (*Hughes*, I, II, III, IV).  
 826. He did not vomit after fourteen grains of Tartar emetic, and did not even suffer from nausea in consequence (*Baldinger*, in *Hahn.*).

## 6. Hiccough.

827. Sobbing eructations; a spasm composed partly of eructation and partly of hiccough (*Hahn.*).  
 828. Pain under larynx, with hiccough, after eating—from gr.  $1\frac{1}{2}$  (*Schneller*).  
 829. Several attacks of violent hiccough (*Ln.*, in *Hahn.*).  
 830. Violent hiccough, which jerked her up, after which she became deaf until the next attack (*Kr.*, in *Hahn.*).  
 831. Violent hiccough about midnight (*Greding*, VI, in *Hahn.*).  
 832. [After hiccough, slight convulsions of head and limbs, followed by nausea and lassitude] (*Ibid.*, XIV).  
 833. [Hiccough with alternate convulsion of the left arm and right leg, followed by violent thirst with redness and heat of the face] (*Ibid.*).

## 7. Sensations in the Stomach.

834. Feeling of emptiness in the stomach—3 hours after gr.  $\frac{1}{4}$  (*Schneller*).  
 835. Painless throbbing and beating at the pit of the stomach (*Hahn.*).  
 836. Pain in the stomach (*Hughes*, VII, 2 cases).  
 837. Excruciating pains about the pit of the stomach (*Wagner*, in *Hahn.*).  
 838. At night, periodical pains at the pit of the stomach, with tremor (*Hahn.*).  
 839. HARD PRESSURE IN THE STOMACH AFTER EATING (*Hahn.*), and also later (*Hrn.*, in *Hahn.*).  
 840. Violent pressure in the stomach, with inclination to vomit (*Schneller*).  
 841. A pressure in the pit of the stomach, in part gnawing (*Hahn.*).  
 842. Violent pressure at the pit of the stomach, felt only in walking: it forces him to move slowly—48 hours after (*Ws.*, in *Hahn.*).  
 843. After lying down in the evening in bed, distended epigastrium, with tensive pain in the stomach (*Hahn.*).



844. Fulness below the short ribs: when stooping, fulness at the pit of the stomach and darkness before the eyes—4 days after (*Hahn.*).
845. After eating a very little food, a peculiar contractive sensation in the stomach (*Mkl.*, in *Hahn.*).
846. Long-standing spasm of the stomach, always during the mid-day meal (*Hahn.*).
847. Profound convulsion of the stomach, like hiccough, lasting for half an hour (in a puppy) (*Manetti*, in *Hahn.*).
848. Spasm in the stomach, like cramp (*El. Camerarius*, in *Hahn.*).
849. Uneasy sensation in the stomach, accompanied by frequent empty eructations, affording no relief. The uneasiness, which gradually became associated with nausea and retching, increased to a pressing, sticking, and contractive pain, accompanied with frequent empty eructations. This spasm of the stomach, which was attended with paleness of the face, slight perspiration, ringing in the ears, and an aching pain in the forehead, lasted two hours (*Kafka*, in 'Brit. Journ. of Hom.', xv, 238, from gr.  $\frac{1}{10}$ th of *Atrop. sulph.*).
850. Shootings at the pit of the stomach (*Hahn.*; and *Hbg.*, in *Hahn.*).
851. Violent shooting, cutting pain in the pit of the stomach, which forces one to bend the body backwards and obliges one to hold one's breath (*Hahn.*).
852. Burning in the stomach (*Henning* and *Hasenest*, in *Hahn.*).
853. Inflammation of the stomach—post-mortem (*Göckel*, in *Hahn.*). [s. 913.]

#### 8. Symptoms after eating and drinking.

- [In addition to Sympt. 797, 801, 805, 839, 845, 846, 1061.]
854. Putrid taste in the mouth after she has eaten (*Hahn.*; and *Mkl.*, in *Hahn.*).
855. Putrid taste comes up out of the fauces, even when eating and drinking, although food and drink have their proper taste (*Ws.*, in *Hahn.*).
856. Cough after eating, and great thirst (*Greding*, XII, in *Hahn.*).
857. Directly after a meal, as if intoxicated—6½ hours after (*Lr.*, in *Hahn.*).
858. After eating, violent pinching below the umbilicus immediately under the abdominal walls—2½ hours after (*Htn.*, in *Hahn.*).
859. After drinking beer, internal heat (*Ws.*, in *Hahn.*).

#### Commentary.

Belladonna would hardly be accounted a main remedy in gastric disorders: nevertheless it causes considerable disturbance of digestion and uneasiness of stomach. It is probable that it affects the gastric mucous membrane similarly, though not so powerfully, as the buccal and faucial: and on this hypothesis most of its stomach symptoms are explicable. The pressive pain and inflammatory tendency (s. 839-842, 852-3), the loss of appetite (s. 757-761), the delayed digestion shown by the acid and putrid eructations (s. 798-801, 854-5) point in this direction. The hiccough seems rather to belong to the spasmodic symptoms of the drug (see especially s. 832-3). The gastric irritation sometimes shows itself in vomiting; but more characteristic of Belladonna is the inability to vomit of s. 823-826, result-

ing probably from its local influence on the nerves and muscles concerned in the action. Absence of thirst, unless decided fever is present, is another characteristic of our drug (s. 767-770; comp. s. 433, 435); though the presence of thirst does not contra-indicate it (s. 772). The alterations in taste, though included in this section, probably depend mainly (as in s. 791) on the buccal disorder.

Belladonna is generally recommended in acute gastric catarrh. Hartmann states that it is "indicated in the most inveterate kinds of cardialgia" (see s. 836-851), "and generally in those cases in which Chamomilla appeared to be indicated, but had been applied without any benefit. \* \* The following symptoms in particular indicate this remedy: where the patient complains of a gnawing pressive, or a spasmodic tensive pain in the epigastric region, which forces him to bend backwards from time to time, and hold his breath in order to obtain relief" (s. 851); "farther, if the violence of the pain produces unconsciousness, or even syncope." Dr. Kafka, after the experiment on himself recorded in s. 849, came to give the Sulphate of Atropia (which he regards as superior to Atropia itself below the diaphragm) in nervous cardialgia with frequent advantage. Dr. Bähr recommends it in chronic vomiting and to relieve the pain of gastric ulcer: and in the 'Amer. Journ. of Hom. Mat. Med.' for November, 1872, there is recorded a case of this last disease entirely cured by the drug.

#### ABDOMEN.

860. Distended, yet neither hard nor painful, abdomen (*Boucher*, in *Hahn.*). [s. 21.]
861. [Distended, hard abdomen] (*Justi*, in *Hahn.*).
862. Meteorism of the belly with constipation—in one case subsiding and recurring with the delirium (*Trousseau* and *Pidoux*).
863. Distension of the abdomen, with rolling or grumbling of the intestines on the left side (*Ln.*, in *Hahn.*).
864. Swelling of abdomen, formation of flatulence, and pinching in umbilical region (*Schneller*).
865. Along with the sensation of distension of the abdomen, constrictive pain below the umbilicus, which comes in jerks, and forces one to lean forwards bent double—4 hours after (*Hahn.*).
866. The abdomen was rather contracted (*Hughes*, IV).
867. A drawing-in of the abdomen, with pressive pain (in lying) (*Hbg.*, in *Hahn.*).
868. A constriction of the belly in the umbilical region, as if a ball or lump were forming (*Ln.*, in *Hahn.*).
869. In the morning, immediately after getting out of bed, a violent, tensive pressing pain in the whole of the hypogastrium, but especially in the region of the os pubis; it appears as if the hypogastrium (rarely the epigastrium) were spasmodically constricted, sometimes as if it were distended (although not really so); pains which gradually increase and gradually decrease—24 hours after (*Gss.*, in *Hahn.*).
870. Colic; spasmodic tension from the chest to deep in the abdomen, which does not permit the body to be moved in the least—½ hour after (*Hahn.*).
871. The abdomen is tense round the ribs (*El. Camerarius*, in *Hahn.*).
872. Colic; as if a spot in the abdomen were seized with the nails, a griping, clutching, clawing (*Hahn.*).
873. A squeezing together in the umbilical region, more in the middle of the day and in the afternoon (*Ibid.*).
874. Squeezing, constrictive pain in the lowermost intes-



- tines, alternately with dull shoots or jerks in the direction of the perinæum—36 hours after (*Ibid.*).
875. Squeezing and clawing around the umbilicus, so that he was obliged to bend forwards (*Hbg.*, in *Hahn.*).
876. Pinching in the intestines (*Ibid.*).
877. Pinching laterally in the abdomen, in the hepatic region, so that, in attempting to rise from his seat, he could not for pain (*Ibid.*).
878. Pinching right across the epigastrium and downwards as if in the colon (*Mkl.*, in *Hahn.*).
879. Violent pinching deep in the abdomen, which becomes much more violent on drawing oneself in and in bending the upper part of the body to the left side—6 hours after (*Htn.*, in *Hahn.*).
880. Pinching colic, whereby he is obliged to sit with his body bent double, with ineffectual urging to diarrhœa and subsequent vomiting (*Hahn.*).
881. In the evening always severe pinchings in the abdomen, followed by a soft motion (*Schneller.*).
882. An extremely severe griping in the umbilical region, which comes from both sides and meets at the umbilicus (*Stf.*, in *Hahn.*).
883. In walking, a severe griping in the right side of the belly, also sharp shootings from thence to the right side of the chest as far as the axilla (*Ws.*, in *Hahn.*).
884. (After drinking milk, colic, a few shoots) (*Hahn.*).
885. (Pressive shooting pain in the left side under the ribs) (*Ibid.*).
886. Dull shootings in the right side of the abdomen near the false ribs (*Ws.*, in *Hahn.*).
887. Itching shootings in the umbilicus, which disappear on rubbing it—1 hour after (*Ibid.*).
888. Fine shootings in the left groin (*Mkl.*, in *Hahn.*).
889. Severe shootings in the inguinal glands (*Hahn.*).
890. During the vomiting, very severe shooting pains in the umbilical region. (A subsequent watery stool relieved this pain.) (*Hale*, III.) [s. 923.]
891. Violent stabs, as with a blunt knife, between the right hip and the umbilicus—12 hours after (*Gss.*, in *Hahn.*).
892. Dull stabs, as with a knife, in the left side below the umbilicus (*Ibid.*).
893. From the region of the navel, round the left hip as far as the lumbar vertebræ, a shooting stab, as if in one thrust, which terminated with great painfulness in the latter region— $\frac{1}{4}$  hour after (*Ibid.*).
894. Cutting in the whole of the hypogastrium, yet most violent in the left side (*Ibid.*).
895. (Cutting in the abdomen in the evening, a few hours before going to bed) (*Hahn.*).
896. VIOLENT CUTTING PRESSURE IN THE HYPOGASTRIUM, NOW HERE, NOW THERE—1 hour after (*Hrn.*, in *Hahn.*).
897. In the morning in bed, in the left side of the belly on which he is quietly lying, a pressive cutting, which disappears so soon as he lies on the other side—11 days after (*Ws.*, in *Hahn.*).
898. When pressing on the epigastrium, pain, as if the hypochondria were being pressed out (*Hahn.*).
899. In sitting with the trunk bent forwards, a feeling in the right groin as if a hard body pressed outwards (*Stf.*, in *Hahn.*).
900. In the hypogastrium, immediately below the umbilicus, a feeling as if the intestines pressed outwards, chiefly in standing—6 days after (*Ws.*, in *Hahn.*).
901. In the right groin, at the inguinal ring, in sitting with the trunk bent forwards, a feeling as if a hard body pressed from within outwards without the part feeling hard to the touch—6 days after (*Ibid.*).
902. Colic, as from a heavy weight pressing, only when walking and standing, disappearing every time he sits down (*Hahn.*).
903. Pressure in the abdomen as from a stone, with pains in the loins (*Greding*, XVIII, in *Hahn.*).
904. Continual colic (*Ibid.*, I).
905. [Colic, constipation, diuresis, with eructations and inclination to vomit] (*Ibid.*, XII).
906. Heat in the belly, with anxiety, in the chest, and in the face, with obstruction of the nose (*Ws.*, in *Hahn.*).
907. Heat from below upwards, a sweat as of anguish breaking out upon her, followed by nausea with terrible anxiety, the sense of nausea descending lower and lower (*Kr.*, in *Hahn.*).
908. Long-lasting painfulness of the whole abdomen, as if it were all sore and raw—1 hour after (*Stf.*, in *Hahn.*).
909. All showed signs of tenderness when pressed even slightly on the abdomen, particularly over the ovarian region (*Teste.*) [s. 286a.]
910. Tumefaction of the abdomen, which was very tender to the touch, constipation, and weak pulse (*Hughes*, IX.) [s. 27.]
911. Swelling of the belly and aphthæ in the throat (*Christison*, p. 765).
912. The abdomen swollen, the pulse small and frequent (*Hughes*, XI, 3.) [s. 184.]
913. Inflammation of the upper part of the duodenum—post-mortem (*Göckel*, in *Hahn.*) [s. 853.]
914. Violent recurring rumbling in the abdomen (*Gss.*, in *Hahn.*).
915. Loud rumbling in the abdomen, as if everything there were jumbled topsy-turvy— $\frac{1}{2}$  hour after (*Stf.*, in *Hahn.*).
916. A rumbling and pinching in the belly (*Ln.*, in *Hahn.*).
917. Very frequent emission of almost inodorous flatus (*Ibid.*, and *Hahn.*).
918. With the desire for stool, feeling in the abdomen as if diarrhœa would set in, with internal heat in the abdomen—1 hour after (*Ws.*, in *Hahn.*).

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*Commentary.*

Belladonna causes within the abdomen the same inflammatory and spasmodic phenomena which we have seen in the stomach. S. 906-913 point to the former; s. 864-905 are numerous and varied instances of the latter. Accordingly, the drug has been found of much value in enteritis and peritonitis; and also in one form of colic. The pain is that described in s. 872; and often with it the transverse colon is felt through the abdominal walls distended like a pad. Much benefit, moreover, has often been obtained from its use in ileus, when inflammatory symptoms are prominent.

## RECTUM AND ANUS.

## (With Defæcation.)

[See also Sympt. 862, 905.]

- 919. When taken by the mouth in poisonous doses Belladonna sometimes causes diarrhœa (*Harley*).
- 920. Diarrhœa, inclination to vomit, and pressure at the stomach (*Greding*, XIV, in *Hahn*).
- 921. Heat of head alternating with diarrhœa (*Ibid*).
- 922. [Several watery stools, immediately after profuse sweat] (*Justi*, in *Hahn*).
- 923. Hurried from bed by urgent desire for stool, followed by very copious watery stool, coming with a gush—13 hours after. This stool relieved the pain in the umbilical region [s. 890]. Another similar stool 15 hours, and a third 20 hours after (*Hale*, III, from gr.  $\frac{1}{2}$ ).
- 924. In the evening always severe pinchings in the abdomen, followed by a soft motion (*Schneller*).
- 925. Pappy stools mixed with mucus (*Hbg.*, in *Hahn*).
- 926. Granular, yellow, somewhat mucous stool (*Hahn*).
- 927. Stool dark-coloured, and moister than natural, from the presence of an increased quantity of mucus, the reaction of which was acid (*Harley*, in a horse).
- 928. Belladonna increases the secretion of bile (*Ibid*).
- 929. Frequent thin stools with tenesmus; frequent desire for stool, obliging him to go every quarter of an hour—48 hours after (*Hahn*).
- 930. URGING TO STOOL, WHICH IS THINNER THAN USUAL, BUT PASSES IN PROPER QUANTITY (*Hrn.*, in *Hahn*).

- 931. Contractive pain in the rectum, then ulcerative pain in the epigastrium; thereupon rapid evacuation of mucous diarrhœa; lastly, tenesmus (*Hahn*).
- 932. First, a soft diarrhœic stool; subsequently, however, frequent desire for stool, of which little or nothing comes (*Ws.*, in *Hahn*).
- 933. Straining to stool; the evacuation is undoubtedly diarrhœic, but very little is voided, and immediately after follows much increased straining—3 hours after (*Stf.*, in *Hahn*).
- 934. A sort of tenesmus, a constant pressing and urging towards the anus and genitals, alternating with painful contraction of the anus—12 hours after (*Hahn*).
- 935. Pressing in the rectum towards the anus (*Mkl.*, in *Hahn*).
- 935a. Constant desire for stool (*Hahn*).
- 936. Ineffectual urging to stool, followed by vomiting (*Ibid*).
- 937. Frequent urging to stool, without result, or with a very scanty and hard evacuation (*Hrn.*, in *Hahn*).
- 938. Unusually diminutive stool, only very small evacuations resulted for several days (*Hbg.*, in *Hahn*).
- 939. After a confined motion, distension of the abdomen and heat in the head (*Greding*, XIV, in *Hahn*).
- 940. *Involuntary evacuation, paralysis of the sphincter ani* (*Dumoulin*, in *Hahn*). [Comp. s. 1003.]
- 941. Paralysis of sphincter ani with involuntary fæcal discharges (*Lusanna*, in *Hughes*. In three patients from  $1\frac{1}{2}$  grain and upwards).
- 942. Small, rapid, involuntary evacuations (*Hahn*).
- 943. Stools have a very sour smell (*Hahn*).
- 944. Shuddering during stool (*Ibid*).
- 945. Violent itching, and at the same time constrictive sensation in the anus (*Gss.*, in *Hahn*).
- 946. Itching in the lower part of the rectum (*Hahn*).
- 947. Violent, sudden, painful itching in the rectum and anus (*Ibid*).
- 948. Itching at the anus externally, when walking in the open air (*Ibid*).
- 949. Voluptuous tickling in the lower part of the rectum (*Ibid*).
- 950. Distinct, rapid, severe shootings in the rectum, during stool—3 hours after (*Ibid*).
- 951. Hæmorrhoidal flow for several days (*Ibid*).

*Commentary.*

Belladonna, in full doses, is unquestionably aperient (s. 919-933). Constipation (s. 862, 937-9) is a rare alternate phenomenon. The diarrhœa is rarely copious, and often seems to consist mainly in an increased formation of intestinal mucus. Tenesmus is a common accompaniment (s. 929-933), less frequently pinchings in the abdomen (s. 923-4). The constipation seems a part of the abdominal hyperæmia which is caused by the drug: it, too, is associated with tenesmus (s. 936-7), also with abdominal distension and heat of head (s. 862, 939). Belladonna, however, has not yet found a place in the therapeutics of diarrhœa: and it is doubtful whether the benefit ascribed to it by Trouseau in chronic constipation is a true homeopathic action.

The anal symptoms of the drug (s. 934-5, 945-950) are sufficient to warrant its trial in irritations and spasms of this part. S. 940-1 are extreme effects, chiefly observed from Atropine, but coinciding well with the corresponding weakness induced in the sphincter vesicæ by Belladonna itself.



## URINARY ORGANS.

## I. URINE.

## 1. Quantity.

952. Anuria in two cases ('Lond. Med. Record,' Nov. 5, 1873).
953. Ischuria for 24 hours: for six days after this the secretion did not exceed six ounces in the twenty-four hours, very high coloured and apparently very thick (*Ibid.*; on 12th day of taking gr.  $\frac{1}{2}$  of Ext. three times a day for diabetes insipidus).
954. No urine passed for thirteen hours (*Hughes*, I).
955. The urine was scanty for the first twenty-four hours (*Hughes*, V).
956. He passed no urine, and the bladder was evacuated by the catheter, the quantity being scanty and strongly ammoniacal (*Hughes*, VI).
957. He passed very little urine (*Harley*. A man poisoned by gr. 1 of Atropia).
958. Suppression of urine and stool, for ten hours (*Hahn*.).
959. Suppression of fæces and urine, with profuse sweat (*Baldinger*, in *Hahn*.).
960. Some urine passed (after an enema) for the first time—thirteen hours after. Twenty-four hours after this, urine excreted copiously (*Hughes*, X).
961. The diuretic effect of the drug now (2-3 hours after) began to be experienced, the patient evacuating an enormous quantity of limpid urine (*Hughes*, II).
962. One other fact relative to the effects of Belladonna is worthy of note—viz. its tremendous diuretic power. I have observed that it does not seem to reach the kidneys until it has been some time in the stomach, and has exerted its specific influence upon the brain. But its power over the secretion of urine seems to be very great. I am confident I passed in the course of an hour three pints of urine, accompanied with a slight strangury at the neck of the bladder (*Hughes*, III).
963. Belladonna is indeed in the truest sense of the word a diuretic, and more powerful perhaps than any other that we possess (*Harley*).
964. Each animal staled copiously twice or thrice during the 5½ hours (*Ibid.*, in horses).
965. Urine more copious than the drink taken would warrant (*Horst*, in *Hahn*.).
966. Profuse urination (*Hale*, II).
967. Diuresis, (*Greding*, several cases, in *Hahn*.).
968. Frequent copious emission of pale, diluted, watery urine (*Glimm*, in *Hahn*.).
969. Emission of a quantity of watery urine, with sweat (*Baylie*, in *Hahn*.).
970. On the emission of a great quantity of urine, and during increased appetite, he is quite cold to the touch (*Greding*, XXIII, in *Hahn*.).
971. [Diuresis at night, with profuse sweat] (*Ibid.*, XXII).

## 2. Appearance.

[See also Sympt. 961, 968-9.]

972. Bright-yellow, clear urine—4 hours after (*Hahn*.).
973. [Clear, lemon-coloured urine] (*Justi*, in *Hahn*.).
974. Golden-yellow urine (*Hbg.*, in *Hahn*.).
975. [Yellow, turbid urine] (*Ackermann*, in *Hahn*.).

976. The urine becomes turbid, like yeast, with a reddish sediment (*Hahn*.).
977. Whitish urine (*Ibid*.).
978. Urine with a white, thick sediment—12 hours after (*Ibid*.).
979. Violent strangury with bloody micturition (*Christison*; case of poisoning by 46 grains of the extract).

## 3. Physical and Chemical Characters.

980. Urine was passed at 1¼ hour, 1½ hour, 2½ hours after the injection of atropia. That passed at 1½ hour was acid, the others were alkaline, and deposited triple phosphate on standing a few hours (*Harley*, in a dog).
981. The urine is nearly always strongly alkaline at the close of the action of Atropia (*Harley*).
982. If the quantity of urine is not increased, the specific gravity will be found higher than natural (*Ibid*.).
983. Analysis will show an increased elimination of all the solid constituents, excepting generally the chlorine. The urea is always increased, and often to a considerable extent; but the effects of the drug are most manifest in the increase of the phosphates and sulphates, which are sometimes doubled (*Ibid*.).
984. When the urine is heated, it almost invariably deposits a cloud of phosphates (*Ibid*.).
985. Belladonna increases the vesical mucus in the urine (*Bücker*).

## II. MICTURITION.

986. Frequent call to pass water, which yet could only be done after a great effort and *guttatim*. The urine was normal, and micturition caused no pain (*Schneller*).
987. Two hours after, he was affected with extreme desire to micturate, though he could pass only a few drops of perfectly colourless urine. From this time, till he lost consciousness, his desire to pass urine was constant; wherever he could retire, he did so, but succeeded in expelling from the bladder, with considerable effort, only a few drops of colourless fluid (*Hughes*, XIII). [s. 674.]
988. Small quantities of urine were frequently passed (*Harley*, in a dog).
989. Tenesmus, and frequent desire to pass urine (*Ibid*. Case of poisoning by gr. 1½ of Atrop. sulph.).
990. Frequent desire to urinate, but the urine was voided in remarkably small quantities, although of a natural colour (*Gss.*, in *Hahn*.: also *Greding*, *Buchave*, and *Hbg.*, in *Ibid*.).
991. He expressed a constant and frequent desire to pass water, but did not succeed in doing so. The bladder was found empty on percussing the abdomen (*Sharpey*).
992. Violent strangury towards the close (*Christison*, p. 765).
993. Violent strangury with bloody micturition (*Ibid*.). [s. 979.]
994. [Retention of urine, which only comes off drop by drop] (*Lottinger*, in *Hahn*.).
995. Retention of urine almost invariably occurs during the action of a full dose of Belladonna, and dysuria very often follows. We may encourage a patient to make prolonged efforts to pass urine when fully under the influence of the drug, and he will either fail altogether or only pass a few drachms, and this



not in little jerks which indicate spasm, but in weak dribbles. Indeed, the absence of spasm is readily determined. If a full-sized flexible catheter be passed under these circumstances, it meets with no opposition, but passes readily into the bladder, and the urine flows as sluggishly as from the bladder of a patient afflicted with paraplegia (*Harley*).

996. His bladder was full of urine on admission—9 hours after (*Hughes*, XV).
997. Catheterism was required during the next four days (*Harley*). [s. 957.]
998. His urine escaped from him during a deep sleep in the day time (*Hahn*).
999. He cannot retain his urine (*Ibid.*).
1000. Incontinence of urine and involuntary faecal discharges (*Lusanna*, in *Hughes*).
1001. Involuntary micturition, in three children (*Boucher*, in *Hahn*).
1002. Frequent involuntary erections and involuntary emissions of urine (*Orfila*, Obs. 7).
1003. [Involuntary emission of urine, paralysis of the neck of the bladder] (*Dumoulin*, in *Hahn*). [Comp. s. 940.]
1004. The bladder half paralysed (*Trousseau* and *Pidoux*).

### III. SENSATIONS.

1005. Sensation of turning and twisting in the bladder, as if from a large worm, without desire to micturate (*Hahn*).
1006. Dull pressing in the vesical region, during the night (*Ibid.*).
1007. Immediately after urinating, a smarting pain in the outer edge of the prepuce (*Ibid.*).
1008. Between the acts of micturition, dull shooting in the urethra, behind the glans, especially during movement (*Ibid.*).
1009. During micturition, drawing in the spermatic cord (*Ibid.*).

#### Commentary.

I. 1. Belladonna is eliminated with the urine. Dr. Harley states as the result of his experiments that—"Atropia passes undiminished and unchanged through the blood, and the kidneys are active in its elimination from the minute that it enters the circulation until it is entirely removed from the body. After a full medicinal dose, between two or three hours are required for this purpose." In passing through the kidneys, it excites the circulation in these organs. If the excitement be moderate, the result is diuresis: if excessive, congestion and stasis occur here as in the throat, and the urine is scanty or even temporarily suppressed. This seems to be the interpretation of s. 954-971. They indicate that it is the primary or Malpighian circulation of the kidneys which is influenced by Belladonna; so that the aqueous portion of the urine is increased or diminished by its use. There is no reason to suppose, from the present symptoms or any which will subsequently come before us, that it has any direct action on the secreting cells of the convoluted tubes.

Belladonna, therefore, does not accompany its analogue, the scarlatinal poison, the whole length of its course. When tubal nephritis has been set up, it cannot neutralize the mischief: though it may (like *Terebinthina*) do good by unloading the Malpighian capillaries, and so setting free a copious flow of urine to flush the ducts. But if the renal

hyperæmia, whether of scarlatina or of cold, has gone no farther than to produce defective secretion, hæmaturia, or even albuminuria, Belladonna may be all that is required. Dr. Harley thinks highly of it in the last-named condition; and himself points out that the quantity of albumen is liable to be increased "unless the dose is a very small one." That is, he admits its action to be homœopathic. Belladonna is also well indicated in diabetes insipidus: s. 953 occurred as an over-effect of the drug in a patient suffering from this disorder, and thereupon followed its cure.

I. 2. The physical and chemical characters of the urine produced by Belladonna (s. 980-985) point to morbid processes going on behind the renal organs. They speak of an increased disintegration of tissue, and if the opinion be sound that an excess of phosphates means special waste of nervous substance, it points thereto in the present instance. In the general effects of the drug we have the actions which explain this increase of the urinary solids; we have seen, or shall see, a febrile condition set up, and the nervous centres especially showing signs of undue excitement. Hence excessive disintegration and waste of tissue, which shows itself in the urine. These phenomena fill up the evidence for the true homœopathicity of the drug to those febrile and inflammatory conditions for which it is so constantly used in the school of Hahnemann.

II. Descending now from the kidneys to the bladder, we find the latter powerfully affected by Belladonna. I cannot agree with Dr. Harley that "the frequent micturition which is observed after poisonous doses, and sometimes after medicinal ones, is the result of frequent calls to empty a distended and weakened bladder." S. 986-993 display a true strangury, very different from the dribbling which takes place from the "distended and weakened" bladder of paraplegia. No spasm, indeed, is present; and the absence of pain forbids the supposition of inflammation. But I think that irritation to no slight extent is set up. Perhaps the "whitish urine" and "urine with a thick white sediment" of s. 977-8 depended upon the presence of bladder epithelium, as so often seen in idiopathic irritability of the organ. In s. 985, indeed, we see on the authority of Böcker that the vesical mucus in the urine is increased by Belladonna. The apparent "retention" may sometimes be deficient secretion, as in s. 956. But I do not deny that a true paresis of the detrusor urinæ (as in s. 995-7) may occur, giving rise to genuine retention. The loss of power may extend to the sphincter, leading to the enuresis of s. 998-1004.

Correspondingly, for simple irritation of the bladder, short of actual inflammation, I know of no medicine so valuable as Belladonna. It is highly commended in post-partum retention of urine; and its occasional value in the nocturnal enuresis of children is universally recognised.

*Terebinthina*, *Ferrum*, *Eupatorium purpureum*, and *Cantharis* are medicines analogous to Belladonna in its influence on the urinary organs. *Terebinthina* covers the same ground: but its effects are more severe, intense, and inflammatory. *Ferrum* causes an urgency to micturition closely resembling that of Belladonna: but it is characteristically diurnal, while that of Belladonna is rather nocturnal. *Eupatorium purpureum*, also, has a very similar vesical irritation, but it is more catarrhal. *Cantharis* has an action on the bladder still more purely inflammatory; and in the kidney acts directly on the secreting cells.



## GENITAL ORGANS.

## MALE.

1010. Weakness and relaxation of genitals (*Schneller*, from gr. 1½).
1011. Nocturnal emission of semen, during relaxation of the penis (*Hahn.*).
1012. Discharge of prostatic juice from a relaxed penis (*Hahn.*).
1013. Nocturnal emission of semen without lascivious dreams (the first night) (*Lr.*, in *Hahn.*).
1014. Indifference in the night to the distinction of the sexes; no lascivious, lustful thoughts will enter his head; the sexual desire in the imagination is as if extinct (*Ibid.*).
1015. Violent shootings in the testicles, which are drawn upwards—12, 18, 30 hours after (*Ibid.*).
1016. At every step violent shootings in the genital region, as if in the internal sexual organs—16 hours after (*Stf.*, in *Hahn.*).
1017. Before falling asleep in bed in the evening, a tearing upwards in the left spermatic cord, repeated a few times (*Mkt.*, in *Hahn.*).
1018. A long stitch in the urethra, which commenced in the bulb and extended to the orifice, in walking—3 hours after (*Htn.*, in *Hahn.*).
1019. In the forepart of the glans, an itching titillation resembling a flea-bite (*Hbg.*, in *Hahn.*).
1020. A soft, painless tumour on the glans (*Hahn.*).
1021. Sweating of the genital organs, in the night (*Ibid.*).
1022. A violent pressing and urging towards the sexual organs, as if everything would fall out there; worse in sitting bent and in walking, better in standing and sitting erect—10 hours after (*Stf.*, in *Hahn.*).

## FEMALE.

1023. (In the morning, a pressing, as if everything would be forced out towards the organs of generation, with distension of the abdomen; after the pressing the abdomen contracted, and this was followed by a discharge of white mucus from the vagina) (*Hahn.*).
1024. Bringing on of the catamenia (*Ibid.*).
1025. Catamenia appear four days too soon (*Ibid.*).
1026. [*Metrorrhagia, the blood having a bad smell*] (*Evers*, in *Hahn.*).
1027. Inordinate menstrual discharge may occur suddenly in females (*Ley*, in 'Lancet' for 1844, I, 542).
1028. Greater flow of the catamenia, with retardation till the thirty-second, thirty-sixth, and forty-eighth day (*Greding*, in *Hahn.*).
1029. Previous to the catamenia lassitude, colic, want of appetite and dimness of sight (*Ibid.*, XVII).
1030. During the catamenia yawning, and chills coursing along the back (*Ibid.*, XIV).
1031. Præcordial anxiety during the catamenia (*Ibid.*).
1032. Great thirst during the catamenia (*Ibid.*).
1033. During the menses a cramp-like tearing, now here and there in the back, now in the arms (*Hahn.*).
1034. Leucorrhœa and colic (*Greding*, XIV, in *Hahn.*).

## Commentary.

The genital symptoms of Belladonna are trivial. The only one which has borne fruit in practice is s. 1023 (comp. s. 1022). Hartmann writes: "that Belladonna exercises

a decided influence upon the uterus is proved by the essential aid it affords in that terrible disease—cancer of the uterus; and in not merely the palliation, but the cure it effects in relaxation of the uterus, or even prolapsus, which arises from that disease. In all of these affections, the sensitive urging and pressing downward, as if all the deeper-seated viscera would protrude at the genitals, exists, with which there is generally united a sensitive pain in the sacrum, all of which symptoms characteristically indicate Belladonna." He also recommends it for uterine congestion, "manifested particularly by a violent burning, stinging, fulness, tension and urging, deep in the abdomen and the sexual organs internally, with which there is often conjoined a dragging, lancinating sensation around the loins, and heat in the region; also sensitive pressure and constrictive pain in the small of the back, which causes the patient to walk slowly and carefully." Dr. Leadam speaks warmly of its power, in high dilutions, to relax rigidity of the os uteri in labour.

## RESPIRATORY ORGANS.

## I. Nose.

[See also Sympt. 1.]

## 1. External.

1035. Above the wing of the nose, pain as if bruised on touching the part (*Hahn.*).
1036. Painful drawing over the left half of the nose (*Hbg.*, in *Hahn.*).
1037. Pressing pain in the bones of the nose (*Gss.*, in *Hahn.*).
1038. Fine stitches in the tip of the nose, the whole night, beginning in the evening (*Hahn.*).
1039. Fine shootings below the nose—½ hour after (*Ws.*, in *Hahn.*).
1040. Sudden redness of the tip of the nose, with a burning sensation (*Ibid.*).
- 1040a. The left nostril is very painful and closed up by matter in the morning (*Stf.*, in *Hahn.*).
1041. Painful ulceration on the side of the nostrils where the latter unite with the upper lip (*Hahn.*).
1042. THE NOSTRILS AND THE CORNERS OF THE LIPS ARE ULCERATED, BUT NEITHER ITCH NOR PAIN (*Ibid.*).
1043. A white-tipped pimple under the left wing of the nose, without pain (*Ibid.*).
1044. At the root of the nose two small red elevations, which feel painful, as if subcutaneously ulcerated, only when touched—16 days after (*Ws.*, in *Hahn.*).

## 2. Internal.

1045. Olfaction too sensitive; the smell of tobacco and soot is intolerable to him—1 hour after (*Hahn.*).
1046. Smell like rotten eggs before the nose, for a quarter of an hour—4 hours after (*Lr.*, in *Hahn.*).
1047. The dryness (of the throat) very often extends to the mucous membrane of the lower passage of the nares (*Harley*).
1048. Mucous membrane of nose dry (*Hale*, II).
1049. Dryness of nasal cavity, with dull frontal headache (*Schneller*).
1050. Frequent dry sneezing, with tickling, especially in the left nostril (*Ibid.*).



1051. He sneezed and rubbed his nose frequently (*Hughes*, I).  
 1052. Mucus mixed with blood blown (*Schneller*).  
 1053. Now stuffing in the nose, now water flows from it (*Bähr*, in *Hahn*).  
 1054. Fluent coryza in one side of the nose and from one nostril only (*Hahn*).  
 1055. Coryza with an offensive smell in the nose as if of herring-pickle, especially when blowing the nose (*Kr.*, in *Hahn*).  
 1056. Bleeding of the nose immediately,—the whole night,—early in the morning (*Hahn*).

#### Commentary.

The nasal symptoms of Belladonna are unimportant. Though they admit of its homœopathic application to most disorders of this part, they do not suggest it, unless it be in dry coryza [s. 1049-1050].

### II. LARYNX AND TRACHEA.

#### 1. Sensations.

1057. The dryness extends into the larynx, rendering the voice husky, and often inducing dry cough (*Harley*; also *Schneller*).  
 1058. In the evening after lying down in bed, tickling, itching sensation in the back part of the top of the larynx, causing a dry, short cough, which he cannot suppress (*Hahn*).  
 1059. Violent, dry cough, as if a foreign body had lodged in the larynx, with coryza—3 hours after (*Lr.*, in *Hahn*).  
 1060. Respiration anxious, and attended with the brazen stridulous sound of croup (*Hughes*, II).  
 1061. Pain under the larynx, with hiccough, especially after eating (*Schneller*).

#### 2. Voice.

1062. Soreness of throat increasing till quite hoarse (*Hale*, IV).  
 1063. Hoarseness (*Vicat*, in *Hahn*).  
 1064. Rough hoarse voice (*Hahn*).  
 1065. Speaking is very difficult for him; he speaks in a piping tone of voice (*Ibid.*).  
 1066. Voice hoarse and weak (*Hempel*, p. 341).  
 1067. Aphonia; or confused sounds uttered with pain (*Pereira*).  
 1068. The voice is sometimes weakened, or there may be complete aphonia (*Ibid.*, from *Atropia*).

#### 3. Cough.

[See also s. 1057-9.]

1069. Every inspiration causes irritation with dry cough (*Hahn*).  
 1070. Dry cough, whereby the throat is scraped (*Stf.*, in *Hahn*).  
 1071. Cough, hollow and scraping (*Hahn*).  
 1072. Croupy cough (*Hughes*, XI, two boys).  
 1073. Violent, dry cough, as if a foreign body had lodged in the larynx, with coryza—3 hours after (*Lr.*, in *Hahn*).  
 1074. Attack of coughing as if one had inhaled dust; he is awakened by it at night, with mucous expectoration (*Hbg.*, in *Hahn*).

1075. Several paroxysms of coughing, caused by the collection of mucus in the throat, occurring once in fifteen or ten minutes, attended with difficult expectoration of thick, tough mucus. After coughing, burning in the throat (*Hale*, II).

1076. [Several consecutive days, about noon, violent cough, with expectoration of much tenacious mucus] (*Greding*, XXII, in *Hahn*).

1077. The upper part of the trachea is affected; he coughs up a substance resembling old catarrhal mucus, of a purulent appearance (in the morning in bed and after rising)—16 hours after (*Hahn*).

1077a. In the morning, when coughing, expectoration of bloody mucus (*Ibid.*).

1078. Cough, with a bloody taste in the mouth (*Ibid.*).

1079. Attack of coughing, followed by heat (*Kr.*, in *Hahn*).

1080. Night cough, which frequently awakes her out of sleep, after which, however, she falls asleep again directly (*Ibid.*).

1081. Violent cough during sleep, with grinding of the teeth (*Hahn*).

1082. Cough commences in the evening (about 10 o'clock), and occurs every quarter of an hour or oftener in three or four fits at a time (*Ibid.*).

1083. CATARRH, OR COUGH WITH CORYZA (*Ibid.*).

1084. (Attacks of coughing, which, and with sneezing) (*Ibid.*).

1085. It is as if there were something in the pit of the stomach, which always makes him cough (*Ibid.*).

1086. (In coughing, the stomach turns, as if vomiting would come on, even when it is empty) (*Ibid.*).

1087. In coughing, a violent pressing pain in the nape of the neck, as if it would break—3½ hours after (*Hta.*, in *Hahn*).

1088. Cough with prickings, as if with needles, in the side under the left ribs—6 hours after (*Lr.*, in *Hahn*).

1089. During coughing the child strains much, and is fretful (*Hahn*).

1090. Before each attack of coughing the child is quiet, and immediately before the cough comes on she begins to cry (*Ibid.*).

#### Commentary.

The clue to most of the laryngo-tracheal symptoms of Belladonna is afforded by s. 1057, from *Harley*. The congestive dryness which we have seen in the mouth and throat "extends into the larynx, rendering the voice husky, and often inducing dry cough." This cough may even be croup-like, as in s. 1060, 1072. And as in the mouth the dryness is succeeded by a coating of unhealthy mucus, so we have the mucous expectoration of s. 1074-1077. S. 1085-6 suggest the medicine in "stomach cough."

Belladonna has been but little used in catarrhal conditions of the larynx. *Kafka* well gives the symptoms which would call for its use:—"If a troublesome feeling of dryness is experienced in the mouth, pharynx, and trachea, attended with a continued titillation in the fauces and on the posterior wall of the larynx; if there is a sensation in the throat as if dust had been inhaled; if the cough is so violent that spasm of the glottis or asthmatic symptoms, with flushed face and heat of the head, set in; if the nerves become irritable and sensitive to light and noise; if the disease has been occasioned by exposure to a draught of air or to sudden fright, or cooling off suddenly while the skin



was covered with perspiration; if the paroxysm breaks out at the time when the patient wants to retire at night, and is made worse by talking, drinking, or crying, Belladonna 3 (dec.) is to be given." Belladonna is also of repute in the catarrhal stage of pertussis.

### III. BRONCHI AND LUNGS.

#### (With Respiration.)

1091. Noise and rattling in the bronchial tubes, with insensibility (*Rau*, in *Hahn*.).
1092. Pressive pain in the chest and between the shoulders (*Hahn*.).
1093. Pressing in the right chest, which causes anxiety (*Ibid*.).
1094. In the evening in bed such a constriction in the chest, which did not pass off on coughing for the purpose, that he could with difficulty draw in his breath, just as if the mucus in the larynx prevented him, accompanied by a burning in the chest—60 hours after (*Ibid*.).
1095. Tightness of the chest (*Vicat*, in *Hahn*.).
1096. Violent constriction across the chest, as if it were being pressed inwards from both sides—8 hours after (*Htn.*, in *Hahn*.).
1097. Difficult respiration (*Rau*, in *Hahn*.). [s. 1091.]
1098. Violent, short, hurried, anxious respiration (*Glimm*, in *Hahn*.). [s. 1196.]
1099. Respiration short, hurried, sometimes very oppressed (*Trousseau* and *Pidoux*.).
1100. Shortness of breath after drinking coffee in the afternoon—3 days after (*Hbg.*, in *Hahn*.).
1101. At times he breathed, at times he appeared to have drawn his last breath; such attacks recurring four times in a quarter of an hour (*El. Camerarius*, in *Hahn*.).
1102. Difficult speech, difficult breathing, and great lassitude; afterwards anxiety (*Hahn*.).
1103. The breathing heavy and stertorous (*Hughes*, X).
1104. The breathing was stertorous, and the respiratory sounds, hastily examined over the anterior part of the chest, were modified by râles (*Hughes*, IV).
1105. Respiration laborious, and occasionally stertorous. Post-mortem: Congestion of the lungs (*Ibid.*, XVI). [s. 376.]
1106. More or less hepatization of the lungs is found after death in cats, rabbits, &c. (*Orfila*.).
1107. Inflammation of the lungs (*Schroff.*, in 'Brit. and For. Med.-Chir. Review,' XIX, 260).
1108. Burning in the right chest (*Hbg.*, in *Hahn*.).
1109. No difference is observed in the rate of respiration, even during the maximum acceleration of the pulse (*Harley*.).

#### Commentary.

The above symptoms seem to show that the action of Belladonna which we have seen in the larynx and trachea extends some way down the bronchial tubes, and even that pulmonary congestion is induced by it. Bähr speaks well of it in the latter condition, and in hæmoptysis thence resulting; he also gives it a high place among the remedies for incipient active bronchitis, and generally considers it "a very efficient remedy in acute catarrh of the respiratory

organs." The constitution of the patient, and the accompanying head symptoms, are his chief indications for it. In Rückert we find it recommended in the early stage of acute bronchitis, simple or capillary, when the cough and breathing are very painful, and the suffocative distress great; especially in children. Hartmann also commends Belladonna in pulmonary congestions and hæmorrhages, especially when connected with morbid dentition in children or catamenial disturbance in women.

S. 1103-1105 are apoplectic; and belong to cases of poisoning where this condition was present. There is no evidence that Belladonna is related to true spasmodic asthma; but where this is rather bronchitic, and occurring in young persons, the drug may be very useful, as it proved in a case recorded by Mr. Nankivell in the 'Monthly Homœopathic Review,' vol. viii, p. 549, S. 1106-7 prove that Belladonna reaches even to pneumonia; it has hardly, however, found place in the therapeutics of this disease in the homœopathic school, though Dr. Harley has used it therein with good success.

### IV. WALLS OF THE CHEST.

1110. Stitches in the sternum in coughing and yawning (*Hahn*.).
1111. Stitches in the side of the chest under the right arm, which hinder the breathing, towards evening (*Hahn*.).
1112. In the right side of the chest, stitches here and there below the skin, in some measure external (*Ibid*.).
1113. In walking, fine stitches below the clavicle from before backwards—four days after (*Ws.*, in *Hahn*.).
1114. Fine stitches in the left side of the chest from the sternum towards the axilla, more violent during motion, unaffected by the breathing (*Ibid*.).
1115. In the right side of the chest a deeply-penetrating and constant stitch, unaffected by the breathing (*Ibid*.).
1116. Fine shooting pain in the chest (*Greding*, XI and XVII, in *Hahn*.).
1117. Shooting, disappearing quickly, like stabs with a blunt knife, below the two last ribs, close to the xiphoid cartilage and above the false ribs—8 minutes after (*Gss.*, in *Hahn*.).
1118. Shooting, pinching pains in the chest on both sides of the upper part of the sternum (*Ws.*, in *Hahn*.).
1119. Intermittent, pressing cutting in the right side of the chest, unaffected by either inspiration or expiration— $\frac{1}{2}$  hour after (*Ibid*.).
1120. Constant pressive shooting in the cartilages of the left ribs, more violent and changing into an almost burning sensation during expiration—3 hours after (*Htn.*, in *Hahn*.).
1121. Acute pressing in the region of the sixth true rib from within outwards— $\frac{1}{4}$  hour after (*Ws.*, in *Hahn*.).
1122. An acute pressing pain in the sternum directly above the xiphoid cartilage (*Gss.*, in *Hahn*.).
1123. A pressing pain below the right nipple (*Ibid*.).
1124. Pressing pain in the chest with shortness of breath, and at the same time between the scapulæ, in walking and sitting (*Hbg.*, in *Hahn*.).
1125. Pressing squeezing pain in the left and right sides of the chest (*Ibid*.).



1126. A corroding, gnawing pain beneath the cartilages of the last ribs on the right side—2 hours after (*Gss.*, in *Hahn.*).

*Commentary.*

Belladonna appears capable of setting up a real pleurodynia, though this is more frequently unaffected by breathing than otherwise. It might be of service in infra-mammary pain, when its subject was too plethoric for Pulsatilla to be suitable.

## CIRCULATORY ORGANS.

### I. HEART AND PRÆCORDIA.

1127. The effect on the heart itself is obvious to the touch. Pulsations, which before a dose of Atropia are only faintly felt through the chest wall, afterwards become each one very strong, distinct, and still regular (*Harley*).
1128. After excessive doses, no hæmometer is required to prove loss of power in the cardiac contractions and diminished arterial pressure (*Ibid.*).
1129. The action of the heart was feeble—2 hours after (*Hughes*, IV). [s. 1104.]
1130. Cardiac sensations rare and slight (*Harley*).
1131. (During rest, palpitation, with feeling as if the concussion extended to the throat, more violent during movement, and with difficult, slow respiration) (*Hahn.*).
1132. Great inquietude and beating in the chest (*Ibid.*).
1133. Palpitation at night, with great debility and distress ('*Brit. Journ. of Hom.,* XXIV, 186). [s. 10.]
1134. A beating pain under the sternum above the scrobiculus cordis (*Gss.*, in *Hahn.*).
1135. When she goes up stairs, the heart clucks,—a sort of palpitation (*Stf.*, in *Hahn.*).
1136. Pressure in the cardiac region, which arrests the breathing and causes a sense of anxiety (*Hahn.*).
1137. Sensation of cardiac oppression in the scrobiculus cordis; she could not breathe properly; thereupon nausea, rising up in the throat as if she would vomit: and so oppression and nausea alternated every seven minutes— $\frac{1}{2}$  hour after (*Stf.*, in *Hahn.*).
1138. While walking, frequently a squeezing in the scrobiculus cordis, a sort of crampy sensation which obliges him to draw a deep breath (*Htn.*, in *Hahn.*).

### II. PULSE AND CIRCULATION.

[See also Sympt. 49.]

1139. After moderate doses the whole circulation is increased in force and rapidity. The force of the larger arteries is good, and if the circulation was previously slow, we find that they are usually increased in volume as well as in tone (*Harley*).
1140. Pulse much increased in force and frequency (*Hughes*, II).
1141. Pulse full, about 120–130 (*Ibid.*, III).
1142. Pulse before taking dose, 85. In twenty-five minutes, 96; in forty-five minutes, 124: in seventy minutes, 130, not so full, but harder. Gradually fell, and in twenty-four hours was 86, full and soft (*Hale*, II).

1143. After ten or fifteen minutes, a (sudden) acceleration of the pulse by from twenty to seventy beats: no apparent change in volume, but a decided increase in the force of the cardiac contractions and of the arterial tone; a general diffusion of warmth, a slight throbbing or heaving sensation in the carotids, and a feeling of pressure under the parietal bones (*Harley*, from gr.  $\frac{1}{18}$ ).
1144. Full, frequent pulse, increased by ten beats (*Gss.*, in *Hahn.*).
1145. Strong, rapid pulse (*Ln.*, in *Hahn.*).
1146. A beating of the arteries of the head and of all parts of the body, in the morning on awaking (*Kr.*, in *Hahn.*).
1147. After larger doses we observe no further increase in the force and rapidity of the circulation, and usually a decided decrease in the volume of the smaller arteries (*Harley*).
1148. Very small, quick pulse (*Hahn.*).
1149. If the dose be still farther increased, we shall observe only a moderate acceleration of the pulse, a diminution of the size of the artery, and a positive decrease in the force of the pulsations (*Harley*).
1150. Pulse 170, and somewhat feeble—3 hours after. Five hours after this had fallen to 144 (*Hughes* I).
1151. The action of the heart was feeble, and the pulsations of the radial artery were 116 in the minute, regular, and weak—2 hours after (*Hughes*, IV).
1152. When the dose is excessive, the artery will often be found dilated, and its coats flaccid, and collapsing under the slightest pressure (*Harley*).
1153. Pulse 70, feeble and compressible (*Hughes*, XV).
1154. Pulse very feeble and almost countless (*Hughes*, V).
1155. Pulse very feeble and quick (*Hughes*, VI).
1156. Very feeble pulse—1 hour after (*Hughes*, IX).
1157. Pulse scarcely perceptible (*Hughes*, X). [s. 1103.]
1158. Large, full, slow pulse (*Hahn.*).
1159. Very small slow pulse (*Hbg.*, in *Hahn.*).
1160. Pulse 37, radial artery full, hard, and firm to the touch, with entire insensibility. A vein being opened in the arm, the blood, which flowed slowly, was dark and thick (*Höring*). [s. 298, 412.]

### III. TEMPERATURE.

1161. An infinitesimal quantity of Atropia—a mere atom—as soon as it enters the blood, originates an action, which is closely allied to, if it be not identical with, that which induces the circulatory and nervous phenomena accompanying meningitis, enteric, or typhus fever (*Harley*).
1162. Pulse before taking the dose 78. In forty-five minutes, it was 130, in an hour and a quarter, 138; the heart's action greatly increased. The pulse did not fall below 112 for some hours; the prover felt hot and feverish, his hands hot and dry (*Hale*, IV).
1163. Towards evening, fever; convulsive shuddering lifts him up in his bed, two hours after heat and general sweat, without thirst either during the shuddering or the heat (*Hahn.*).
1164. Fever; in the evening while she was undressing, slight chilliness over the body, then heat in the whole of the left side of the body (*Ibid.*).



1165. (Fever: after the chill felt quite well for a few hours, then sweating in the face, hands (qy?), and feet (qy?), before the heat came on; no sleep during the hot stage, hardly any thirst in the cold and none in the sweating and hot stage; slight headache with the sweat in the face, but none in the cold stage or in the hot) (*Ibid.*).
1166. (Fever: first putrid taste in the mouth, then heat of the face and hands; the pain increases after the disappearance of the heat) (*Ibid.*).
1167. Fever: chill in the evening in bed, then heat; the chill commenced in the sacrum, spread itself over the back and down again over the thighs (*Kr.*, in *Hahn.*).
1168. Fever: thrills of chilliness running over the whole body (1 hour after)—4 hours after feeling of heat, and actual heat, especially in the face (*Hrn.*, in *Hahn.*).
1169. Fever: at night febrile chill, followed quickly by heat of the body, with frequent urination and lassitude of the limbs:—the following night two attacks of the same kind of fever, with vertigo and thirst (*Greding I.*, in *Hahn.*).
1170. Fever: sudden alternations of heat and chill (*Baehr.*), both without thirst, with sleepiness in the day-time—12 hours after (*Ws.*, in *Hahn.*).
1171. Several attacks of fever in one day, during which the hot stage followed the cold within a few minutes to half-an-hour after, always without thirst in either stage, and mostly with confusion of the head (*Hrn.*, in *Hahn.*).
1172. Attacks of fever frequently recurring during the day, the shaking chills are followed by general heat and sweat over the whole body, without thirst either in the cold or the hot stage (*Hahn.*).
1173. Cold feet, with bloated, red face and flow of blood to the head (*Ibid.*).
1174. Chilliness, especially in the arms, with goose-flesh, in undressing; at the same time redness and heat of the ears and nose (*Ibid.*).
1175. A violent chill seizes her in the back or scrobiculus cordis, or in both arms at the same time, and spreads itself from thence all over the body (*Baehr.*, in *Hahn.*).
1176. Chilliness and shuddering with goose-skin, even near to the warm stove—1 hour after (*Mkl.*, in *Hahn.*).
1177. Febrile chilliness, with fine, shooting pains in the chest (*Greding, XI.*, in *Hahn.*).
1178. Frequent yawning and then shiverings over the body, but which only course along the external surface of the skin, in the evening (*Baehr.*, in *Hahn.*).
1179. Fever: febrile chill in the morning, followed by slight heat (*Greding, I.*, in *Hahn.*).
1180. Fever: shivering over the body in the afternoon, flushes of heat (*Hbg.*, in *Hahn.*).
1181. Fever: during the external coldness of the body, an internal burning heat (*Hahn.*).
1182. General dry heat in the extremities of the feet and hands, with thirstlessness and paleness of the face, lasting twelve hours (*Ibid.*).
1183. (In the evening, heat in the hands and feet, but not in the arms and thighs) (*Ibid.*).
1184. Violent heat (*Rau.*, in *Hahn.*).
1185. Burning heat (*El. Camerarius.*, in *Hahn.*).
1186. Burning heat externally and internally (*Vicat.*, in *Hahn.*).
1187. The skin was dry and burning, and the pulse small, wiry, hard, and extremely frequent (*de Launay d'Hermont.*, in *Hahn.*).
1188. [Burning fever (*synocha*)—12 hours after] (*de S. Martin.*, in *Hahn.*).
1189. Burning heat of the body with extreme distension of the superficial blood-vessels, and furious delirium (*Baldinger.*, in *Hahn.*).
1190. Distension of the superficial veins of the body, with insatiable thirst (*Ibid.*).
1191. Distension of the cutaneous veins (*Hbg.*, in *Hahn.*).
1192. The blood-vessels of the limbs are distended, especially the arteries in the neck pulsate, so that when the lower jaw is opened it strikes against the upper one at every beat, and thus gives rise to a slight chattering of the teeth; at the same time warmth and feeling of warmth in the whole body, more especially in the head (*Fr. H—n.*, in *Hahn.*).
1193. [Every day after dinner, great heat of the body, especially the head, so that the face from time to time is very red] (*Greding, XIII.*, in *Hahn.*).
1194. Every day (for 12 days) towards noon, sudden heat of head and redness of face, with considerable obscuration of sight and great thirst, lasting an hour (*Ibid.*, XIV).
1195. SENSATION OF HEAT, WITH ACTUAL HEAT IN THE WHOLE BODY, BUT PARTICULARLY IN THE FACE, WHICH WAS RED AND COVERED WITH SWEAT, WITH CONFUSION OF THE HEAD—4 hours after (*Hrn.*, in *Hahn.*).
1196. A burning thirst, with great heat in all parts, tormented the patient, who now craved for drink, and now repelled it when offered (*Glimm.*, in *Hahn.*).
1197. Fever after each dose (*Lentin.*, in *Hahn.*).
1198. Alternate heat and chill, a violent tension of the chest, with dyspnoea, and feeblehess of the pulse—from tasting Atropia (*Trousseau and Pidoux.*).

#### Commentary.

Belladonna does not appear to have any action upon the heart as a distinct organ, as Aconite, Cactus, Digitalis, Spigelia have: it affects it only in common with the whole circulation. The palpitation of s. 1133 was part of a general nervous derangement (see s. 10). The cardiac action is increased, by moderate doses, in both force and frequency (s. 1127, 1139–1145); so that Belladonna must excite it through the sympathetic, and not through the vagus which would diminish the rapidity of its beat. To the same effect is the contraction of the arteries resulting from fuller doses (s. 1147, 1149). Excessive doses cause exhaustion, indicated by feeble circulation and flaccid arteries (s. 1128, 1152).

The experiments of Dr. Harley confirm in all these particulars the symptoms of poisoning and proving collected by Hahnemann. They go farther, and demonstrate that the febrile condition so repeatedly recorded by the latter as resulting from the drug is a true *pyrexia*. "The similarity" he writes, "of the general phenomena which attend the operation of Belladonna and those which accompany pneumonia, enteritis, the development of pus in any of the tissues or organs of the body, &c., has already arrested the attention." Other experimenters, also, have found a con-



stant and decided elevation of temperature from Atropia.\* The fever induced differs considerably from that of Aconite and Arsenic. The chill is slight, and sweating is rare after the heat; the heat itself is very decided, but it is seldom accompanied with thirst, nor is there the restless, uneasy, anxious condition especially characteristic of Aconite.

We of the homœopathic school have long ago drawn from such facts the inference that Belladonna has an important place in the treatment of the primary fevers; and that where pyrexia accompanies inflammations of parts which it specifically irritates (as the throat), it suffices to control both the general and the local phenomena. It is interesting to find Dr. Harley coming to the same conclusion. He believes "that it has not yet attained to its legitimate place as a therapeutic agent" (meaning, of course, in traditional medicine), and anticipates "that its sphere of usefulness will be acknowledged before long to be co-extensive with that of acute disease itself." If he would read Hartmann's Essay, he would find that Belladonna had attained this its "legitimate place" among those whom he stigmatizes as "blindly led by an unscientific dogma" at least forty years ago.

#### SKIN.

[See also Sympt. 10, 1254.]

##### 1. *Appearances.*

1199. Redness of the skin—30–60 min. after each dose (*Lusanna*, in *Hughes*).
1200. Scarlet suffusion of the skin in young children and those who have a delicate skin. Generally nothing more than a temporary blush, but in rare cases and in persons who are liable to vascular irritation of the skin, the redness remains, and its disappearance is attended with slight roughness and desquamation (*Harley*).
1201. Scarlet redness of skin of face and neck, followed on the second day by peeling off of the cuticle (*Taylor*, 2nd ed., p. 827).
1202. The skin of the whole body began to feel tinged (qr?) and swollen—15 min. after. In about an hour and a half it was covered with a rash precisely similar to that of scarlatina (*Practitioner*, IV, 372. From hypodermic injection of Atropia).
1203. The eruption, which recalls closely enough that which characterizes scarlatina, has been noticed by numerous observers (*Trousseau* and *Pidoux*: see also *Tilbury Fox*, *C. Hunter* and others in 'Lancet' for 1867).
1204. Skin pungently hot and dry, and covered with a rash closely resembling that of scarlatina, which the child was frequently scratching (*Hughes*, I). [s. 1150.]
1205. The face, upper extremities, and trunk exhibited a diffuse scarlet efflorescence, studded with innumerable papillæ, very closely resembling the rash of scarlatina. The eruption terminated abruptly at the wrists and flexure of the thighs, the rest of the body retaining the natural colour. The skin was hot and dry (*Hughes*, II). [s. 1140.]
1206. Skin hot and pungent (*Sharpey*).
1207. Scarlet eruption on the arms and legs—in several cases (*Hughes*, XIV).
1208. Dark-red scarlet spots over the whole body, with small quick pulse (*Wiedemann*, in *Hahn*). [s. 74, 114.]
1209. Cutaneous eruption resembling measles (*Buchave*, in *Hahn*).
1210. Inflamed red patches of the skin, and irregularly-shaped, scarlet spots over the body—16 hours after (*Hahn*).
1211. Chest and belly are covered with small, red, somewhat elevated, painless spots, frequently disappearing and then suddenly reappearing, with general redness of the skin (*Ws.*, in *Hahn*).
1212. The chest and thighs are sprinkled over with very small, dark red spots of irregular shape and size (*Greding*, XIX, in *Hahn*).
1213. Heat all over the body, with bluish redness of the whole surface (*Wiedemann*, in *Hahn*).
1214. Redness of the whole body (*Münch*), with quick pulse (*Buchave*, in *Hahn*).
1215. The whole body was swollen and red (*Sauter*, in *Hahn*).
1216. Intense, erysipelatous fever, accompanied with inflamed swellings, passing even into gangrene (*Hahn*).
1217. The back, especially in the scapular region, is covered with large red pustules; the whole skin looks red, and smarts as if sore when touched, but in the tips of the pustules there is fine shooting—10 days after (*Ws.*, in *Hahn*).
1218. Pustules appear on the nape of the neck and on the arms, quickly fill with pus, and become covered with a crust (*Hahn*).
1219. Boil upon the shoulder (*Ibid.*).
1220. [Red scaly eruption on the lower parts of the body as far as the abdomen] (*Ziegler*, in *Hahn*).
1221. Eruption on the skin of bullæ which emit a quantity of limpid or creamy lymph; and therewith such intense pain, that the patient, though accustomed to suffering, cannot refrain from lamentation and tears. When on the foot, it is so painful that she has to keep the limb horizontally extended and immovable (*Lambergen*, in *Hahn*).
1222. The general effects of Belladonna on the circulation predispose to sweating (*Harley*).
1223. General sweat, suddenly occurring and as quickly disappearing (*Rt.*, in *Hahn*).
1224. He sweats over the whole body at the least exercise, mostly on the face, down the nose. While walking in a strong wind, and so sweating, colic is induced (*Hahn*).
1225. Night sweat (*Hbg.*), which smells like something burnt (*Hahn*).
1226. Profuse sweat, especially at night (*Greding*, VI et passim, in *Hahn*).
1227. Waking directly after midnight in a sweat, he cannot go to sleep again; and the sweat continues during the waking hours (*Hahn*).
1228. Atropia checks sweating, whether physiological or morbid (*Ringer*, in *Practitioner*, vol. IX).

##### 2. *Sensations.*

1229. Painful sensitiveness of the skin to all contact (*Kr.*, in *Hahn*).
1230. Crawling itching over the whole body, fugitive, now here, now there (*Ws.*, in *Hahn*).

\* See Dr. Gibbs Blake's paper on "Pyrexia," read before the Brit. Hom. Congress of 1873, in 'Monthly Hom. Rev.' Nov., 1873.



1231. Tearing itching here and there, especially after lying down at night in bed; after rubbing there only remains tearing pain, but this in a greater degree (*Hahn.*).  
 1232. In the evening in bed itching prickings, like flea-bites, here and there on the skin (*Ibid.*).  
 1233. Sensations of formication (*Greding*, XIV, in *Hahn.*).

#### Commentary.

That Belladonna is a true irritant of the skin the above symptoms leave no question. We pass along them from simple suffusion (s. 1199) to scarlatinoid efflorescence, with heat, dryness, itching, and desquamation (s. 1200-1208): thence to erythematous and erysipelatous phenomena (1210-1216), to inflammatory pustules and boils (s. 1219-1219), scaly eruption (s. 1220), and bullæ (s. 1221). It is accordingly our first remedy in all acute and recent cutaneous inflammations. The skin symptoms concur with those of the brain, throat, and circulation to make it eminently homœopathic to sthenic forms of scarlatina. In erysipelas its action is most potent, as Liston found when he adopted it from homœopathy. It will often blight an incipient boil, and clear the skin of acne; while s. 1221 indicates it in pemphigus. S. 1229-1233 would justify its trial in appropriate cases of pruritus.

S. 1222-1227 show that Belladonna has some sudorific properties, though Dr. Ringer's experiments referred to in s. 1228 express its absolute and immediate action on the sudoriparous glands.

A word here as to the prophylactic power of Belladonna against scarlatina. Regarding this Hahnemann writes—"The prophylactic power of Belladonna discovered by me (given in the smallest dose every six or seven days) against the genuine, erysipelas-like, smooth scarlet fever described by Sydenham, Plencitz, and others, has been for nineteen years aspersed and scoffed at by numerous physicians. They were ignorant of the essential character of this disease of childhood, and were foolish enough to give its name to the *rothe Friesel* (*Purpurfriesel*, *Roodvonk*) which migrated hither from Belgium in 1801 and since. They tried in this disease my prophylactic and curative remedy for the true scarlet fever, and, as was to be expected, without effect. Now I rejoice that—the genuine scarlet fever having of late years been again observed—other physicians have confirmed the prophylactic power of Belladonna against it, and have done me justice after the long and unfounded scorn with which I had been treated."

An extensive trial of this prophylactic measure has been made, with very varying results. The whole story is told in Dr. Dudgeon's "Lectures on Homœopathy;" and the balance seems on the whole to be in its favour. The scarlatina we see in this country is commonly his "smooth" variety; and the other kind, when appearing, is readily distinguished, as may be seen in an account of an epidemic of it given by Dr. Bayes in vol. iv of the 'Annals of the British Homœopathic Society.'

#### BACK AND LIMBS.

[See also Motility, *passim*; and Sympt. 4, 5, 6, 10.]

##### 1. PELVIS.

1234. The ischia feel sore; it seems to her as if she had no flesh on them; nevertheless, she has more comfort

in sitting on something hard than on a soft seat (*Kr.*, in *Hahn.*).

1235. A dull, irritable drawing in the whole circumference of the pelvis; this pain is alternately felt in the sacrum and the os pubis (*Gss.*, in *Hahn.*).  
 1236. Intensely painful sensation of cramp in the lumbosacral region and the coccyx: he can only sit for a short time, and while sitting becomes quite stiff, and unable to rise again for pain; he cannot even lie down well; he often wakes at night because of it, and has to turn on the other side because of the violence of the pain; he cannot lie at all upon the back; he is relieved chiefly by standing and walking slowly about, but he cannot walk fast—for 8 days (*Ws.*, in *Hahn.*).  
 1237. When rising from his seat he feels a pain in the crests of the ilia, as if a sharp body were protruding there (*Ibid.*).

##### 2. LUMBAR REGION.

1238. Spasmodic sensation in the left lumbar region (*Hbg.*, in *Hahn.*).

##### 3. SPINAL COLUMN.

1239. Rheumatic pain in the back (*Greding*, XV, in *Hahn.*).  
 1240. Pressive pain at the left of the spinal column, under the false ribs (*Hbg.*, in *Hahn.*).  
 1241. Gnawing in the spinal column, with cough (*Hahn.*).  
 1242. Shooting and gnawing pain in the spinal column (*Ibid.*).  
 1243. Stabbings as if with a knife from without inwards in the vertebræ (*Kr.*, in *Hahn.*).  
 1244. Pain as if dislocated in the right side of the back and the spinal column (*Hahn.*).  
 1245. Cramp-like, pressive sensation in the middle of the spinal column, which becomes tensive when he attempts to straighten the back— $\frac{1}{2}$  hour after (*Htn.*, in *Hahn.*).  
 1246. In the evening she attempted to stretch herself, but was unable to do so for pain (*Kr.*, in *Hahn.*).

##### 4. SCAPULAR REGION.

1247. Pain in the head, shifting to the scapulæ (*Greding*, VIII, in *Hahn.*).  
 1248. Pressive pain under the left scapula, more towards the outer side (*Gss.*, in *Hahn.*).  
 1249. Drawing pressure between the right scapula and the spinal column (*Hrn.*, in *Hahn.*).  
 1250. Pain between the scapulæ, as from a strain (*Hahn.*).  
 1251. Violent drawing along the spine between the scapulæ, in the evening (*Ibid.*).  
 1252. Cramp pain, almost like pinching, between the right scapula and the spinal column (*Ws.*, in *Hahn.*).  
 1253. (A titillating itching on the left scapula) (*Ln.*, in *Hahn.*).  
 1254. Itching stinging on the scapulæ, inducing him to scratch, whereby it is relieved (*Ws.*, in *Hahn.*).  
 1255. Fine shootings in the right scapula (*Ibid.*).  
 1256. Repeated electric shoots from the left scapula to the right—1 hour after (*Mkl.*, in *Hahn.*).  
 1257. SHOOTING PRESSURE ON THE TOP OF THE LEFT SHOULDER—3 hours after (*Hrn.*, in *Hahn.*).



1258. Painful stiffness between the scapulæ and in the nape of the neck when turning the head and neck to and fro, in the morning—16 hours after (*Hahn.*).

## 5. ARMS.

1259. Painful swelling of one of the left axillary glands—5 hours after (*Hahn.*).
1260. A (SENSE OF) STRETCHING AND TWISTING IN THE UPPER EXTREMITIES (*Ln.*, in *Hahn.*).
1261. [Rheumatic pain in the right arm, with sense of formication; on the following day spasm of the same arm] (*Greding*, XIV, in *Hahn.*).
1262. Sense of great lassitude in the arms, but still more in the hands, as if she must let them hang down (*Stf.*, in *Hahn.*).
1263. Heaviness in both arms (*Hahn.*).
1264. Heaviness of the left arm, relieved by venesection (*Greding*, XXIII, in *Hahn.*).
1265. A heaviness and paralytic feeling in the upper extremities, especially in the left arm (*Ln.*, in *Hahn.*).
1266. Weakness as of paralysis, first in the right upper arm, afterwards also in the forearm—8 hours after (*Mkl.*, in *Hahn.*).
1267. PARALYTIC PRESSURE IN THE LEFT UPPER ARM, WITH PARALYTIC FEELING AND WEAKNESS OF THE WHOLE OF THE LEFT ARM (*Hrn.*, in *Hahn.*).
1268. PARALYTIC DRAWING PRESSURE, WITH WEAKNESS, IN THE RIGHT UPPER AND FORE-ARM—4 days after (*Ibid.*).
- 1268a. PARALYTIC TEARING PRESSURE IN THE ANTERIOR SURFACE OF THE LEFT UPPER ARM—5 days after (*Ibid.*).
1269. [Spasm of the right arm, with grinding of the teeth] (*Greding*, XX, in *Hahn.*).
1270. A drawing downwards in the muscles of the right upper arm, which, when it had reached the region of the elbow, twitched upwards again to the axilla, and there ceased for a while (*Hahn.*).
1271. Convulsive shaking of the arm, as from excessive shuddering (*Ibid.*).
1272. [Concussive spasms of the arms] (*Greding*, I, in *Hahn.*).
1273. A violent stabbing pain, as with a blunt knife, below the head of the humerus, from within outwards (*Gss.*, in *Hahn.*).
1274. Stiffness, so that she could not bend it, in the right arm, upon which she had not lain, at 3 a.m., with a feeling as if it were shorter than the other, and with a tearing pain therein (*Stf.*, in *Hahn.*).
1275. Drawing pain in the inside of the left upper arm (*Hbg.*, in *Hahn.*).
1276. Tearing pain in the humerus (*Ibid.*, and *Hahn.*).
1277. Bruised pain in the upper arms—6 hours after (*Ws.*, in *Hahn.*).
1278. A creeping upwards in the left arm, as when a fly walks along the skin, which frequent rubbing does not remove (*Hahn.*).
1279. (When moving or touching the elbow, it pains as if burnt) (*Hahn.*).
1280. A rumbling in the bend of the left elbow, as if water or some heavy liquid were running through the veins (*Hbg.*, in *Hahn.*).
1281. Cutting pain in the interior of the left elbow-joint, when walking (*Ws.*, in *Hahn.*).

1282. Sharp shootings externally, in the left elbow-joint—72 hours after (*Ibid.*).
1283. Paralytic drawing pain in the elbow (*Hahn.*), and in the fingers of the left hand (*Hbg.*, in *Hahn.*).
1284. Fine shootings in the left fore-arm—24 hours after (*Ws.*, in *Hahn.*).
1285. Dull shootings in the middle of the inner fore-arm, which gradually increase and at length become very violent (*Gss.*, in *Hahn.*).
1286. Cutting tearing in the lower muscles of both fore-arms (*Htn.*, in *Hahn.*).

## 6. HANDS.

[See also Sympt. 4, 5, 6, 10.]

1287. Paralytic tearing in the carpal bones (*Hrn.*, in *Hahn.*).
1288. Shooting tearing in the metacarpal bones of the left hand (*Htn.*, in *Hahn.*).
1289. Tearing pressure in the metacarpal bones and the first joint of the left index finger (*Ibid.*).
1290. Profuse cold sweat of the hands (*Hahn.*).
1291. The backs of both hands are covered with small red spots, which disappear again speedily (*Ws.*, in *Hahn.*).
1292. Feeling of stiffness in the right hand and the fingers: she cannot bend them (*Stf.*, in *Hahn.*).
1293. He is not able to turn the hand easily and freely on its axis (as when dropping into a glass): he can only turn it by jerks: it is as if there were a deficiency of synovial fluid in the carpus: this impeded motion, however, is painless—4 hours after (*Hahn.*).
1294. PAINFUL DRAWING IN THE POSTERIOR JOINT OF THE LEFT MIDDLE FINGER, AS IF IN THE PERIOSTEUM (*Hrn.*, in *Hahn.*).
1295. PARALYTIC TEARING IN THE MIDDLE JOINT OF THE RIGHT INDEX FINGER (*Ibid.*).
1296. The anterior joint of the middle finger is as if stiff and painful on bending, a simple pain (qy? sore) (*Hahn.*).
1297. Tearing cutting in the muscles of the right little finger (*Htn.*, in *Hahn.*).
1298. Sharp shootings in the metacarpal bone of the thumb—1 hour after (*Ws.*, in *Hahn.*).
1299. The tips of the fingers of the left hand are painful as if they had been jammed (*Hbg.*, in *Hahn.*).
1300. During general chill, shootings in the tips of the fingers from below upwards, especially when grasping (*Hahn.*).
1301. Pain in the tip of the middle finger, as if some foreign body had lodged in it and produced ulceration: the pain is greater when touching the part (*Ws.*, in *Hahn.*).
1302. Blister on the finger with painful inflammation (*Lambergen*, in *Hahn.*). [s. 1221.]
1303. [A pustule breaking out close to the nail of the right index finger, and emitting a quantity of humour] (*Greding*, XV, in *Hahn.*).

## 7. LEGS.

1304. Sore pain on the inner side of the thigh (*Hahn.*).
1305. PAIN IN THE THIGHS AND LEGS AS IF THEY WERE BRUISED ALL OVER AND AS IF THEY WERE ROTTEN: FINE SHOOTING AND GNAWING ALONG THE SHAFTS



- OF THE BONES, WITH VIOLENT TEARING IN THE JOINTS: THE PAIN GRADUALLY RISES FROM THE TARSAL JOINTS TO THE HIPS, OBLIGES HIM, WHILE SITTING, CONTINUALLY TO MOVE AND SHIFT THE FEET, AND BECOMES Milder WHEN WALKING—4 hours after (*Ws.*, in *Hahn.*).
1306. A sort of stretching; he is obliged to extend the legs—11 days after (*Hahn.*).
1307. In walking, heaviness of the thighs and legs, with stiffness of the knee-joints—12 hours after (*Ws.*, in *Hahn.*).
1308. Paralytic drawing in the right thigh and leg (*Hrn.*, in *Hahn.*).
1309. Cramp-pain in the glutei muscles, with tension, on bending the body forwards (*Ws.*, in *Hahn.*).
1310. Three or four violent shoots in the right hip, when at rest and in motion (*Stf.*, in *Hahn.*).
1311. Quickly-passing feeling of coldness in the right hip-joint—1 hour after (*Ws.*, in *Hahn.*).
1312. Pain in the left hip, with limping (*Greding*, XX, in *Hahn.*).
1313. When lying upon her right hip, she feels a pain in her left; but when she lies upon the painful hip, all uneasiness subsides—8 or 9 days after (*Hahn.*).
1314. Paralytic tension, while walking, in the hip-joints, as if they were dislocated (*Ws.*, in *Hahn.*).
1315. Cutting twitching tearing in the posterior muscles of the left thigh when sitting— $\frac{1}{4}$  hour after (*Htn.*, in *Hahn.*).
1316. CUTTING SHOTS IN THE EXTERNAL MUSCLES OF THE RIGHT THIGH, JUST ABOVE THE KNEE, ONLY WHEN SITTING—2 $\frac{1}{2}$  hours after (*Ibid.*).
1317. Excessive heaviness and stiffness in the thighs while walking (*Kr.*, in *Hahn.*).
1318. Heaviness in the thighs even when sitting (*Hbg.*, in *Hahn.*).
1319. A pain drawing from within outwards on a small spot on the inner side of the left thigh—1 hour after (*Gss.*, in *Hahn.*).
1320. Hard pressure in the middle of the anterior surface of the right thigh (*Htn.*, in *Hahn.*).
1321. A knife-stab in the middle of the thigh more towards the posterior side, immediately after a meal (*Gss.*, in *Hahn.*).
1322. A fluctuating throbbing pain in the upper and inner part of the left thigh—29 hours after (*Ibid.*).
1323. Tingling quivering sensation over the right knee when sitting— $\frac{1}{4}$  hour after (*Htn.*, in *Hahn.*).
1324. Cramp-like pain in the right knee, near the patella, towards the outer side, when sitting (*Ibid.*).
1325. Violent pain in the knee (*Stf.*, in *Hahn.*).
1326. In walking, the outer hamstring of the left knee-joint feels tight and as if too short: it alternates with a similar sensation in the inner hamstring, but that in the outer one is more intense (*Mkl.*, in *Hahn.*).
1327. Squeezing and pressing pain in the bend of the right knee (*Hbg.*, in *Hahn.*).
1328. Dull shoots in the bend of the left knee— $\frac{1}{4}$  hour after (*Gss.*, in *Hahn.*).
1329. A twitching in the bend of the right knee— $\frac{1}{4}$  hour after (*Ln.*, in *Hahn.*).
1330. [Tremor of the knees] (*Müller*, in *Hahn.*).
1331. A disagreeable sensation in the joints of the lower extremities, particularly in the knees, as if they would give way, especially when walking and then most in going down hill (*Hahn.*).
1332. A twitching in the bend of the knee, extending upwards into the muscles of the thigh (*Ibid.*).
1333. Very rapid bubbling, as of water, in the fore part of the left knee, when sitting (immediately) (*Ws.*, in *Hahn.*).
1334. Prickings below the left patella, when sitting (*Gss.*, in *Hahn.*).
1335. Pressive shooting in the right patella, while sitting—3 $\frac{1}{2}$  hours after (*Htn.*, in *Hahn.*).
1336. A sensation in the legs, drawing from below upwards, as of crawling externally, but internally as of innumerable shootings (*Ws.*, in *Hahn.*).
1337. A sensation in the leg as if it were jammed, and a commotion (dull tearing) and stir therein, especially at night, relieved by letting the leg hang down—10 hours after (*Hahn.*).
1338. Dull tearing in the legs (*Hbg.*, in *Hahn.*).
1339. A burning tearing in the leg upwards through the inner surface of the patella (*Ibid.*).
1340. Tremulous heaviness of the legs (*Ibid.*).
1341. Painful sensation of heaviness in the right leg when laying it over the left—4 hours after (*Htn.*, in *Hahn.*).
1342. A drawing heaviness in the legs (*Hahn.*).
1343. Tearing pain in the tibia (*Ibid.*).
1344. Sensation like a "growing-pain" in the right leg, a feeling of stiffness combined with heaviness (*Htn.*, in *Hahn.*).
1345. Drawing, tearing pain in the right tibia, with sensation of pressing asunder therein—4 hours after (*Htn.*, in *Hahn.*).
1346. Sharp shootings in the left calf, coming up from the lower part (*Ws.*, in *Hahn.*).
1347. TEARING PRESSURE IN THE MIDDLE OF THE INSIDE OF THE LEG, UNINFLUENCED BY MOTION OR CONTACT (*Hrn.*, in *Hahn.*).
1348. Pressure in the forepart of the left tibia, when standing (*Hbg.*, in *Hahn.*).

## S. FEET.

1349. Occasional lassitude of the feet, with drawing pain therein (*Hahn.*).
1350. A bubbling in the foot, as when water is dropped therein—54 hours after (*Ibid.*).
1351. When treading upon the left foot, painful shootings dart up to the knee—38 hours after (*Ws.*, in *Hahn.*).
1352. Cutting drawing at a small spot in the feet, which extends from below upwards, first through the legs and thighs, afterwards through the small of the back up to the shoulders (*Kr.*, in *Hahn.*).
1353. Sweat of the feet, without warmth, in sitting (*Hbg.*, in *Hahn.*).
1354. Biting itching in the feet and their dorsa (*Hbg.*, in *Hahn.*).
1355. Dull shoots in the dorsum of the left foot, when sitting: external pressure does not affect them (*Ws.*, in *Hahn.*).
1356. While walking in the open air, tension in the right tarsal joint (*Hahn.*).
1357. While walking or bending the foot together, pain in the metatarsal bones as if dislocated (*Ibid.*).



1358. Tearing pain in the metatarsal bone of the great toe (*Ibid.*).  
 1359. Cramp in the sole of the foot, in the evening when in bed, when drawing up the knees (*Ibid.*).  
 1360. Burning and digging in the soles of the feet (*Kr.*, in *Hahn.*).  
 1361. Violent itching of the feet (*Hahn.*).  
 1362. Creeping in the feet from below upwards—20 hours after (*Ibid.*).  
 1363. Swelling of the feet (*Ibid.*).  
 1364. Heat, especially in the feet (*Ibid.*).  
 1365. Boring, digging pain in the soles of the feet—several hours after (*Ibid.*).  
 1366. Shooting pain in the soles of the feet— $\frac{1}{2}$  hour after (*Ibid.*).  
 1367. Pain, as if bruised, in the ball of the heel, when treading on it (*Ibid.*).  
 1368. A sort of painless drawing or creeping from the heel to the toes, around the bones—30 hours after (*Ibid.*).  
 1369. Boring or tearing shoots in the tendo Achillis (*Ibid.*).  
 1370. (While walking) tearing in the sole of the left foot, with occasional shootings, for a quarter of an hour (*Mkl.*, in *Hahn.*).  
 1371. TENSION IN THE SOLE OF THE RIGHT FOOT, IN THE REGION OF THE HEEL, CHANGING INTO A TENSIVE PRESSURE: WHEN PRESSING UPON THE PART THIS PAIN DISAPPEARS FOR SOME TIME— $\frac{1}{4}$  hour after (*Hrn.*, in *Hahn.*).

#### 9. ARM, BACK, AND THIGH.

1372. Very painful cramp in the left arm and in the back, which in the evening extended to the thigh (*Greding*, VI, in *Hahn.*).

#### GENERALITIES.

1373. Ordinarily, when a pain had reached its highest degree, it disappeared suddenly; and instantly there arose in its stead a pain in some other place (*Gss.*, in *Hahn.*).  
 1374. (The parts where the shooting pain had been were extremely tender to touch) (*Hahn.*).  
 1375. Boring pain in the glands (*Ibid.*).  
 1376. Cold, painful, long-lasting nodosities and swellings (seemingly a secondary effect) (*Ibid.*).  
 1377. Frequently recurring, short attacks of great weakness; she feels as if too heavy, and as if drawn down, so that she would sink together (*Baehr*, in *Hahn.*).  
 1378. Failure of strength, great weakness (*Hahn.*, and *Wierus* and *Wagner* in *Hahn.*).  
 1379. Great prostration with internal burnings (*Carl*, in *Hahn.*).  
 1380. After death rapid septic change occurs (*Hahn.*, and *Mappus*, in *Hahn.*).

And now, a few general conclusions.

1. The preceding pages exhibit unmistakeably the enormous superiority of the Hahnemannian method of studying medicines. The traditional plan is to find out by a few experiments in what class or classes a drug is to be ranked, whether it is purgative, emetic, sudorific, narcotic, and so forth; and then to use it in disease when it is thought desirable to obtain such effects from it. But Hahnemann

teaches that every drug must be studied as a separate individual; that no general expression or classification can describe its action; and that a complete register of the effects it produces is indispensable for its use as a medicine. The result of the former course of proceeding has been to class Belladonna as a narcotic and sedative; and to use it in a few forms of pain and spasm. But the series of symptoms now shown to have arisen from it displays its influence on well-nigh every part of the organism; and has suggested its application to a great variety of morbid phenomena.

2. It is difficult to see what use can be made of the information here collected except upon the principle of "similia similibus." What avails it to know that Belladonna disorders perception, ideation, and emotion in the hundred and more various ways I have exhibited? There is no malady in which it can be desirable to set up such disorder. The only way to utilize such facts is that followed by Dr. Harley in reference to the fever induced by the drug. (See *Circulatory Organs.*) If Belladonna has this powerful action on the brain, it may be of use in some diseases of the organ. This is an argument not uncommonly used; it is obviously the first step to homœopathy.

The rule "similia similibus curentur" at once lays holds of the whole body of morbid phenomena induced by a drug, and applies it to the treatment of diseases. Because Belladonna has this vast range of poisonous action, therefore and just so far has it power to cure. And so we have long used it as one of the first of "polychrests;" it is probably more frequently prescribed in homœopathic practice for acute disease than any other medicine save Aconite.

3. Belladonna illustrates the principle "similia similibus," not only in its more general form of "magis venenum, magis remedium," but also in its detailed application. The poisonous action of the drug is upon certain tissues only,—the nervous, cutaneous, and mucous: it has no direct influence on muscular tissue, on fibrous or serous membrane, or on bone. Precisely corresponding is its sphere as a remedy. Again, it manifests (as a poison) special affinities for certain tracts or organs, such as the brain, the eye, the mouth and throat, and the kidneys and bladder. It is only necessary to look through a book of homœopathic therapeutics to see that it is just in the treatment of cerebral affections and other neuroses, of ophthalmia, of angina, and of vesical troubles that Belladonna holds its largest place.

Dr. Harley's book, to which I have so often referred, supplies a welcome corroboration to these doctrines. There is not a single fever or inflammation in which he has given it with success which is not shown, by his own or others' investigations, to have been caused by it. Indeed, he himself admits as much. "It appears," he writes, "that the stimulant action of Belladonna is converted in great measure in febrile diseases into a tonic and sedative influence"—i.e. that while it irritates in health it calms in disease. And he explains the phenomenon thus:—"Two similar effects, the one arising from a local irritation and the other from the presence of Belladonna, like spreading circles on a smooth sheet of water, interfere with and neutralize each other." This is an explanation of homœopathic action which has been current in the school of Hahnemann for these thirty years. Let us hope that such entire coincidence of theory and practice in respect of the present drug may be the first note of the harmony, if not the unison, of the future.



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CHAPS. VI, 'Nose and Smell;' VII, 'Face and Neck;' VIII, 'Teeth and Gums;' IX, 'Mouth and Tongue;' X, 'Throat;' XI, 'Appetite, Taste, and Digestion;' XII, 'Acidity, Nausea, and Vomiting;' XIII, 'Stomach;' by Drs. Drysdale and Stokes.

CHAP. XIV, 'Abdomen;' by Drs. Drysdale, Stokes, and Hayward.

CHAP. XV, 'Stools and Anus,' by Dr. H. Nankivell.

The following subjects are also undertaken, and some of them are in a state of forwardness :—

(1) "Materia Medica" section.

'Conium Maculatum,' by Dr. Dyce Brown.

'Crotalus Horridus,' by Dr. Hayward.

'Curcumis Colocynth,' by Dr. J. Murray Moore.

'Natrium Muriaticum,' by Dr. Galloway.

(2) "Repertory" Section.

Supplement to Chaps. I, II, and III, by Drs. Dudgeon and Stokes.

'Sleep and Dreams,' by Dr. Mackechnie.

'Male Genitals,' by Dr. Watson.

'Female Genitals,' by Dr. Stokes.

'Urinary Organs,' by Dr. G. A. Craig.

'Neck and Back,' by Dr. E. Wynne Thomas and Dr. Edward T. Blake.

'Respiratory Organs,' by Mr. Watts.

'Febrile Symptoms,' by Dr. Carfrae.

'General Chapter,' by Dr. Madden.



















